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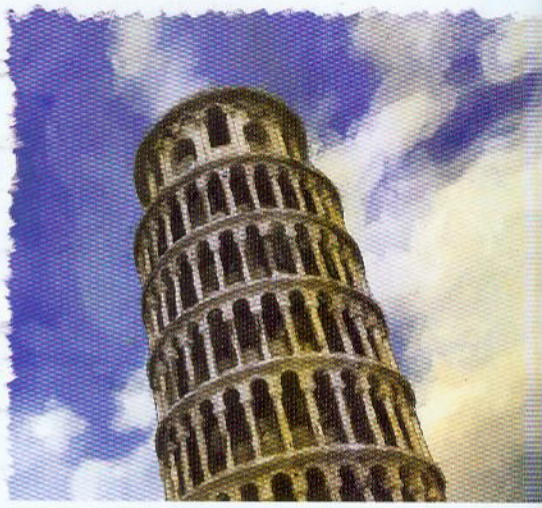

3D illustration by Simon Danaher.

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An artist who often uses four or more applications to create his naïve, dream-like, textured digital art

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Work along with our tutorials using the files and resources on our cover disc. Turn to page 94 for details.

Jason Cook guides you through the process of making this double-page illustration in a retro comic style.

TUTORIALS START ON P9

Three digital artists working three different programs show you how to create a variety of artistic techniques. The painting to come out on page 10...

Illustration: Jason Cook [w] www.jasoncook.co.uk

SECTION **ONE**

Paint a Cubist work of art

In the first of two *Photoshop* tutorials, we take our inspiration from Picasso and delve into the natural media world of Cubism…

Photoshop 7 is a truly remarkable piece of software. It's not just an awe-inspiring photo-editing and photo-illustration tool, it's also a great painting package, nearly on a par with *Painter*. In this tutorial, we look at using *Photoshop* layers and filters to simulate a Cubist piece of art, creating the kinds of textures we would associate with this type of imagery. We won't actually use the new dynamic Brushes palette much in this tutorial – instead, most of the effects will be done by using some of the filters intelligently and with the help of blending modes.

A good degree of experience with *Photoshop* is required to generate this image, and we'll also use *Poser* at the beginning of the tutorial.

Expertise provided by Jason Cook. You can see a wide variety of Jason's work at **[w]** www.jasoncook.co.uk. He can be contacted at **[e]** jc@jacey.com

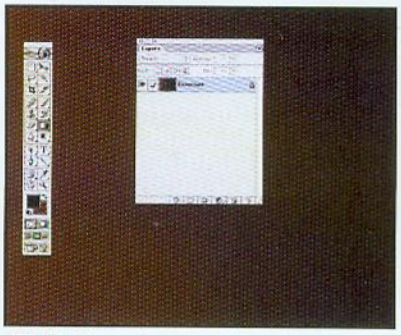
Files on disc
All the files needed for this tutorial are on the cover CD. Go to: Software \ Tutorials \ Illustrator / Photoshop tutorials \ Dual Photoshop tutorial \ Section 1.

Part 1: Building the background

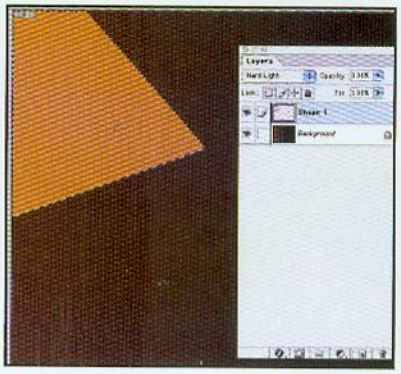
Start by creating a number of angular shapes and then apply a few filters to replicate the background of a Cubist painting...

The origins of Cubism

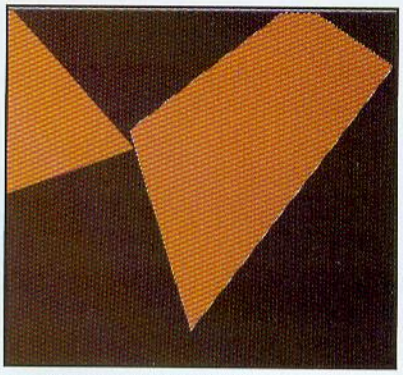
In 1907, Pablo Picasso painted a huge canvas called Les Demoiselles d'Avignon. This painting represented not only a great new phase in Picasso's art, but it truly was the beginning of modern art. It was also classed as the first Cubist art. Cubist works are geometrical in style and try to convey as many viewpoints as possible of one object. So the back and side of an object would be placed next to the foreground elements.



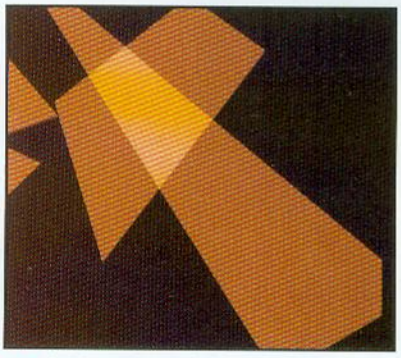
1 Start by creating a new document: 44cm wide, 32cm high. Set the resolution to 72 pixels/inch, and select RGB mode. Make the foreground colour R:108, G:61, B:23, then make the background colour R:11, G:8, B:4 by clicking on the colour tabs on the Tools palette. Use the Gradient tool to make a gradient across the document from right to left.



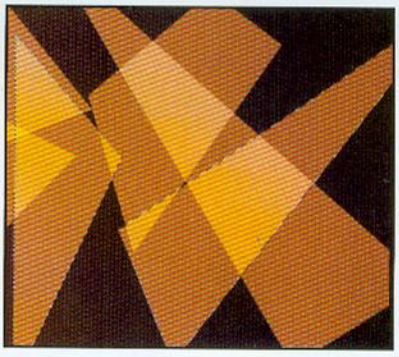
2 Create a new layer and rename it Shape 1, then use the Polygonal Lasso tool from the Tools palette to create a shape similar to the one above. Using Edit>Fill, fill it with R:215, G:180, B:149. In the Layers palette, change the Blending mode for this layer to Hardlight.



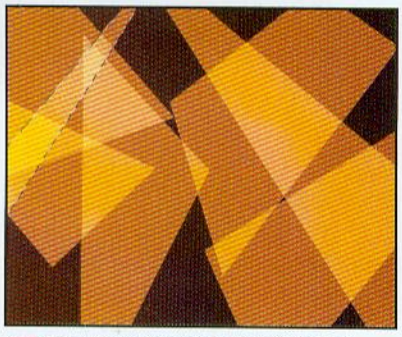
3 You now need to repeat this process a few times. So, create a new layer and rename it Shape 2, then use the Polygonal Lasso tool to create a shape similar to the one above. Using Edit>Fill, fill it with R:215, G:180, B:149. In the Layers palette, change the blending mode for this layer to Hardlight.



4 Again, create a new layer and rename it Shape 3, then use the Polygonal Lasso tool to create two shapes similar to the ones above. Using Edit>Fill, fill it with R:215, G:180, B:149. In the Layers palette, change the blending mode for this layer to Hardlight.

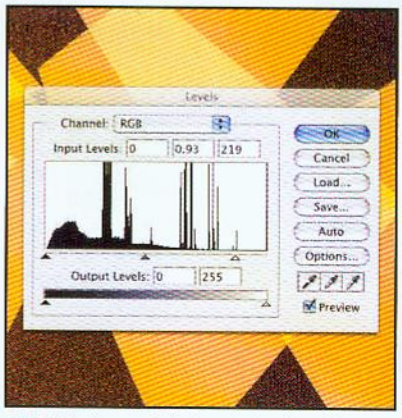


5 Create a new layer and rename it Shape 4, then use the Polygonal Lasso tool to create two shapes similar to the ones above. Using Edit>Fill, fill it with R:215, G:180, B:149. In the Layers palette, change the blending mode for this layer to Hardlight.

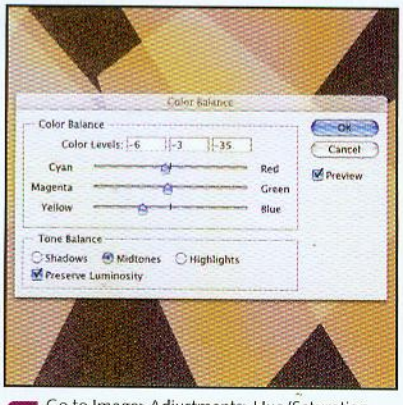


6 Create a new layer and rename it Shape 5, then use the Polygonal Lasso tool to create a shape similar to the one above. Using Edit>Fill, fill it with R:215, G:180, B:149. In the Layers palette, change the blending mode for this layer to Hardlight. See jc_cubism_low.psd on the cover CD for reference.

7 Now flatten the entire image (Layers>Flatten Image) and then go to Filters>Artistic>Film Grain and set the Grain to 10, the Highlight area to 13 and the Intensity to 9. This creates a nice texture which adds a good element of noise to the image.



8 Go to Image>Adjustments>Levels and then set the input levels from left to right to 0, 0.93, 219. Click OK. This boosts the contrast of the overall image and helps retain some brightness when we de-saturate in the next step.



9 Go to Image>Adjustments>Hue/Saturation and edit the master only. Set the Hue to -12 and the Saturation to -68, and leave the Lightness at 0 then click OK. Now open Image>Adjustments> Colour Balance and set the midtones colour levels to -6, -3, -35. Then click OK.

Part 2: Adding more depth

Further enhance the background to give it more depth, and add key strokes to simulate paint marks...

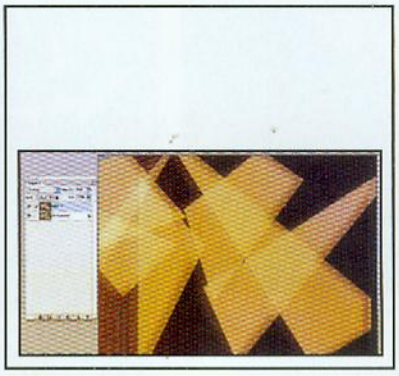
Murky palette

The Colour palette is of the utmost importance when trying to recreate an art period. Browns, greys and yellows play heavily in Cubist paintings. Doing something in a bright purple palette wouldn't really work at conveying this period, so try to stay with murky colours instead.

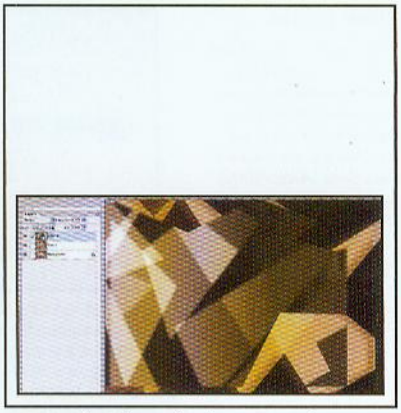
Grainy textures

One of the best ways to get great textures with a grainy feel is to take a section of an image and then to enlarge it considerably and boost its contrast with Levels. Try to reduce the colour as well, then use blending modes like Overlay and Hardlight so the layers underneath this layer will show through, adding to an overall grainy feel.

1 Duplicate your flattened layer by dragging it into the Layers palette to the Create New Layer icon, or go to Layer>Duplicate Layer and rename it 'blur 1'. Now go to Filter>Gaussian Blur and set the Radius to 9.2 pixels and click OK.

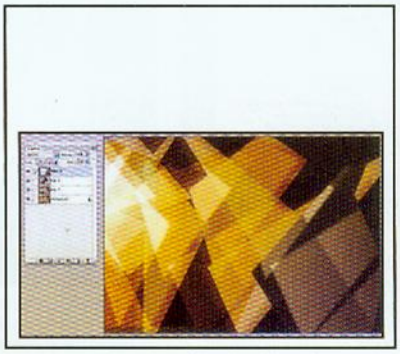


2 In the Layers palette, switch the blending mode for the blur 1 layer to Overlay, then set its opacity to around 52 per cent. Use the Move tool to move the layer up and to the left slightly so it's offset from the layer below. This will give the image some depth.

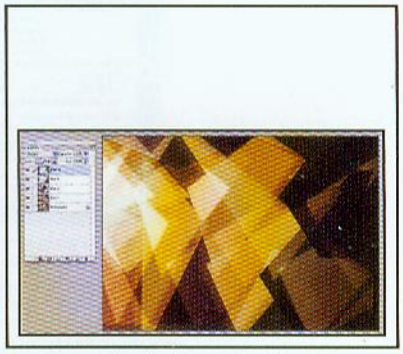


3 Use the Polygonal tool to create a shape on the 'blur 1' layer and then Edit>Copy and Edit>Paste. This should now paste a shape similar to the above. Name the new layer 'blur 2'.

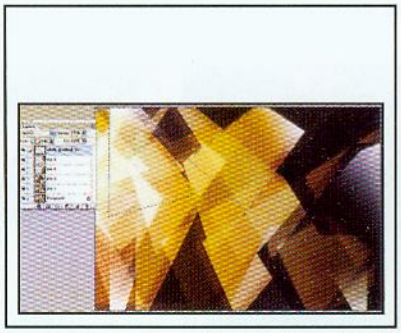
4 Staying with the 'blur 2' layer, switch its blending mode to Overlay and then move it towards the left of the document window to offset it even more. See above for more reference.



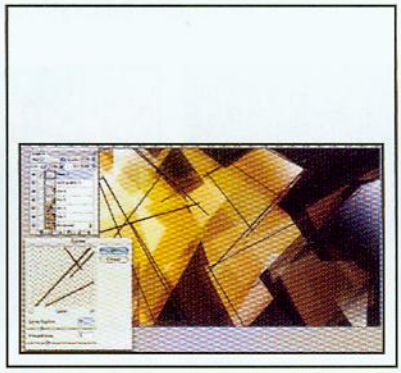
5 Cut another shape from the 'blur 1' layer and then paste it as the top layer in the Layers palette. Cut the shape from the bottom-right corner of the layer. To paste as a top layer in the Layers palette, just select the top layer of the palette and then paste. Rename this layer 'blur 3'.



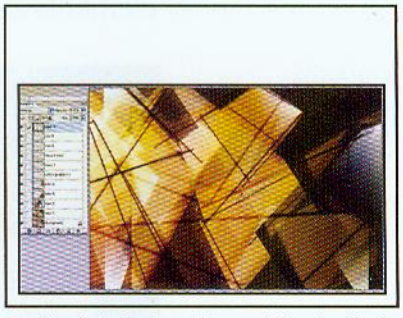
6 Now set the blending mode of 'blur 3' to Multiply and then repeat this step and the previous step with a new shape and stick it at the top right corner of the image. This should help darken this area without losing the effect of the texture. Call this new layer 'blur 4'.



7 Create a new layer and call it 'white gradient 1'. Then use the Polygonal tool to create the shapes as above. Do them one at a time and then use the Gradient tool with the foreground colour as white and the background as transparent. Use the options bar at the top to reset the Gradient tool. Then fill the shape like the above. Do this around four times to four different shapes on the same layer, and then set the opacity to around 79 per cent.



8 Now create a new layer and name it 'lines 1'. Select the Line tool in the Tools palette and make sure it's switched to fill pixels in the option bar. Then set the Weight to 5px (pixels) in the option bar and draw a few lines as we've done in the above image. Then go to Filter>Brushstrokes>Spatter and set the Spray Radius to 5 and the Smoothness to 5.



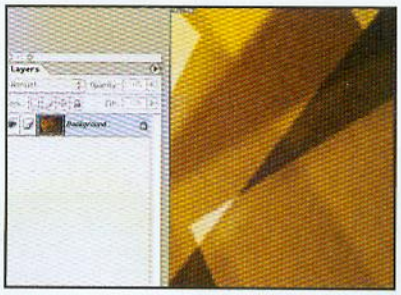
9 Duplicate the lines 1 layer and Gaussian Blur it to around 3 pixels radius. Then set this layer's blending mode to Hardlight. Set the original lines 1 layer to Multiply and its opacity to 60 per cent. Now repeat the above steps a few more times so you have a number of lines on the image and varying angles – try different colours as well. Then flatten this file and save it to your hard drive. Save a layered version as well. See jc-cubism_low2.psd on the CD for reference.

Part 3: Preparing renders

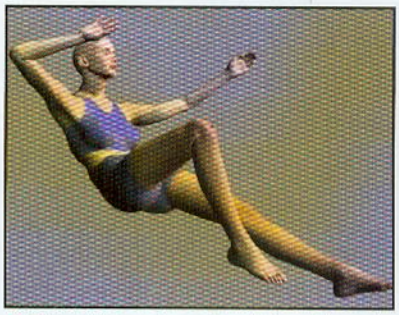
It's time to create a few 3D renders using *Poser*...

Poser figures

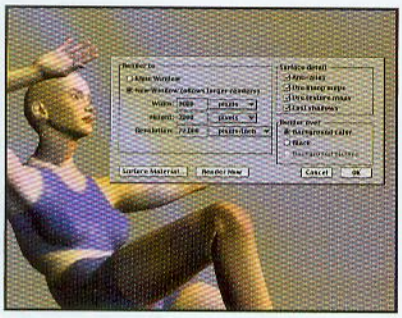
One of the great things about new digital art software is that you don't have to be a great figurative artist, because there are many applications out there to help you. *Poser* is great for using as a base for your artwork – you can work over the rendering to get a more accurate representation of a figure, rather than spending hours trying to sketch something in *Photoshop*. Try it for yourself using the *Poser* demo on the cover CD!



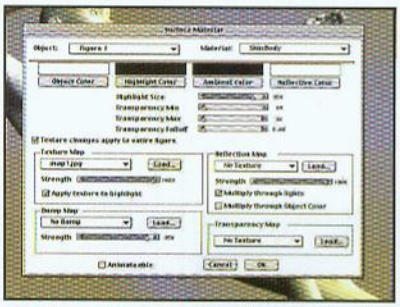
1 First, cut a section from the flattened *Photoshop* file and save it as a JPEG – this will be used as a texture map on the *Poser* figure. Make the image size of this cutout around 260 pixels wide and 160 pixels high, RGB and 72dpi. See map1.jpg on the CD.



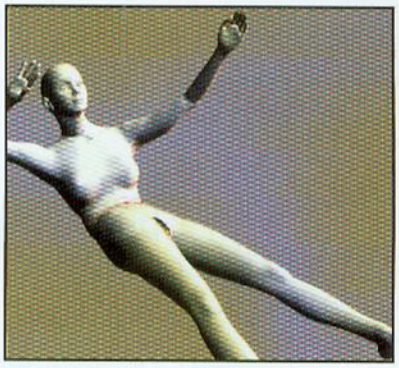
2 Open *Poser* and use a female figure. Then set the pose of the figure to something similar to the above. Using the light controls, make the lights face toward her, so the front of her body and the model's face are evenly lit.



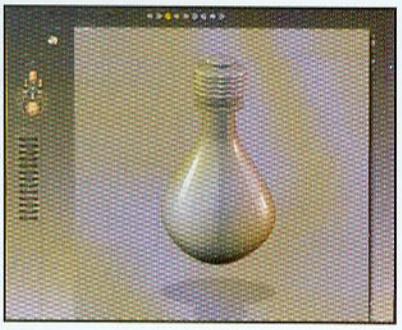
3 Go to Render>Render Options and set the New Window option to 2000 pixels wide and 2000 pixels high. Choose a resolution of 72dpi, switch on all the Surface detail options, and set Render over to Background colour.



4 Now go to Render>Materials. Object should be set to Figure 1, and Material should be set to SkinBody. Then switch on 'Texture changes apply to entire figure'. Press Load in the Texture Map section and select map1.jpg. Click OK. Then go to Render>Render and once the image has rendered, save it as cube_woman1.tif



5 Repeating the previous steps generates another figure. Put the figure into a pose similar to the above. Apply the texture map and render it, then save the figure as cube_woman2.tif.



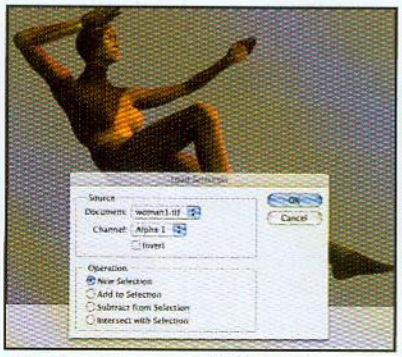
6 Still using *Poser*, open bulb.dxf via File>Import>DXF and position it as above. Then set the render options to 500 pixels wide and 500 high and make sure anti-alias is on. Set the lights at an even position surrounding the bulb, then render it and save it to your hard drive as bulb1.tif.

Part 4: Combining renders and background

Open the render elements and apply them to the background you've already created...

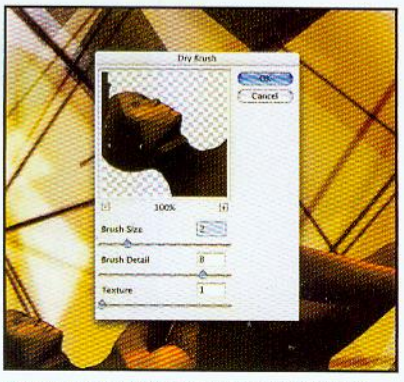
RGB filters

Be warned that the majority of artistic filters in *Photoshop* only work with RGB mode and not CMYK. So watch out for incorrect colours and the murkiness that goes with converting RGB to CMYK once you've applied a filter to your image.



1 Open cube_woman1.tif. Then go to Select>Load Selection and make sure the source document is set to woman1.tif and the channel is Alpha 1. Set Operation to New Selection. Go to Edit>Copy to copy it to the clipboard.

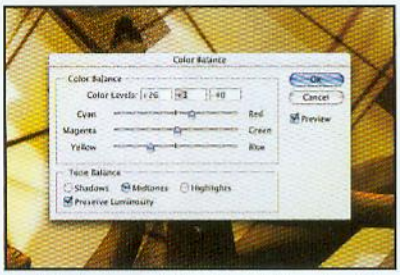
2 Now open the background we created earlier and paste the copied selection from cube_woman1.tif in this document by going to Edit>Paste. Once it's been pasted, rename the layer 'woman 1' in the Layers palette. Now go to Edit>Transform Scale and reduce the size of the woman within the document. Once you've scaled it, go to Edit>Transform>Rotate and rotate it so it looks like the above picture.



3 You now need to add a paint texture to the figure, so go to Filter>Artistic>Dry Brush and set the Brush Size to 2, the Brush Detail to 8 and the Texture to 1. Then click OK.

Essential kit

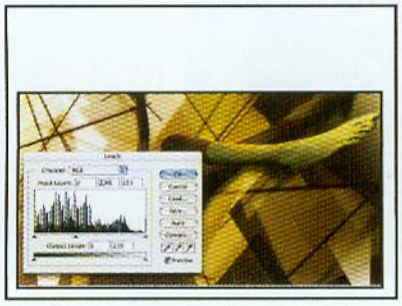
Drawing pads like the Wacom products are vitally important when pursuing a career as a digital illustrator, especially with the new dynamic Brushes palette in *Photoshop*. These pressure-sensitive drawing pads are the next best thing to using pen on paper. Over time, you should find yourself with one hand using the pen and pad and the other hand on the keyboard using *Photoshop* shortcuts. You'll also find that you don't even need to look at the keyboard. Most pads have macro buttons at the top of the pad, to which you can assign tasks and actions to save time. For reviews of some of the latest tablets in the Wacom range, see page 88.



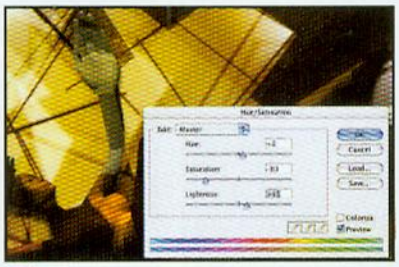
4 The background is looking a bit too saturated, so click on the background layer and then go to Image>Adjustments>Hue/Saturation, and then set the Saturation to -42. Then go to Image>Adjustments>Colour Balance and set the Colour Levels for the midtones from left to right to: +26, +3 and -40.

5 Go back to the woman 1 layer in the Layers palette and use the Polygonal tool to delete bits of the figure so it looks like the above. This helps to give the figure a more Cubist look.

6 Now duplicate the woman 1 layer and then select the original woman 1 layer. Switch on the Transparency Layer Lock options at the top of the Layers palette then go to Edit>Fill and fill with the colour black. This should fill the woman element only. Switch off the Transparency Lock and then offset this layer down and to the left a bit. Now set the blending mode to Hardlight and the opacity to 60 per cent. Using Gaussian Blur, set the pixel radius to around 5.2 so your figure has a drop shadow.



7 Go to the woman 1 copy layer and use the Polygonal tool to loosely cut around the figure's right foot and shin. Then use Edit> Transform>Distort so it looks about the size of the above image and position it accordingly. Then open Levels and set the Input Levels to 0, 1.43 and 255 and call this layer 'leg 1'.



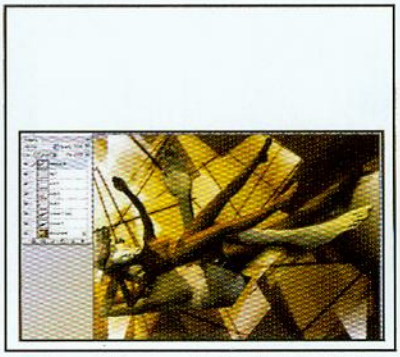
8 Go to the woman 1 copy layer again and use the Polygonal tool to loosely cut around the figure's left forearm and hand. Then use Edit> Transform>Distort so it looks about the size of the above image, and position it accordingly. Then open Levels and set the Input Levels to 0, 1.43 and 255 and call this layer 'arm 1'. Then open Hue/Saturation and set the Hue to +8, Saturation to -63 and Lightness to +15.

9 Still on the woman 1 copy layer, use the Polygonal tool to loosely cut around the figure's body. Then use Edit>Transform>Distort so it looks about the size of the above image, and position it accordingly. Then open Levels and set the Input Levels to 0, 1.43 and 255 and call this layer 'body 1'. Then set the Hue to +1, Saturation to -52 and Lightness to 0.

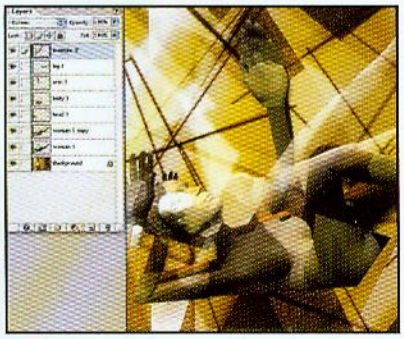
Part 5: Adding another figure

Now we show you how to introduce the second figure to the illustration...

1 First, go back to the woman 1 copy layer and use the Polygonal tool to loosely cut around the figure's face and head. Then use Edit>Transform> Distort so it looks about the size of the above image, and position it accordingly. Then open Levels and set the Input Levels to 0, 1.47 and 177 and call this layer 'head 1'. Then set the Hue to 0, Saturation to -62 and Lightness to +1. Then go back to levels and set the Input Levels to 0, 1.00, 205.



2 Open cube_woman2.tif and load its selection. Copy and paste it as the top layer in the Cubism illustration and as the top layer in the Layers palette. Rename it 'woman 2'. Then distort it so it's like the shape and size above.

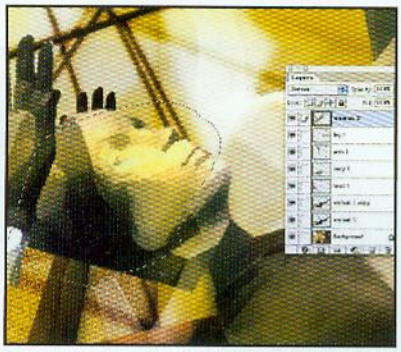


3 Staying with the woman2 layer, open the Hue/Saturation dialog box and set the Hue to 0, the Saturation to -75 and the Lightness to +18. Then open the Levels dialog box and set the Input Levels to 0, 0.73 and 168. Then set the blending mode to Screen.

Adding another figure continued...

Light and shadow

Levels are an important feature in *Photoshop* because they provide a quick way of setting the highlights and shadows in an image by moving the Input sliders to the first group of pixels on both ends of the Levels histogram. By doing this, the pixels are mapped into the darkest and lightest pixels in each channel, which then increases the tonal range of the image or selection. This is great if your original digital image is a bit flat and you want to add some contrast. The Levels feature has more control than the Brightness and Contrast option.



4 Use the Lasso tool to delete any elements of the woman 2 layer which obscure the woman 1 face layer below. If there are any other elements you're not happy with then delete those. Use the above image for reference.

5 Still on the woman 2 layer, hold down the Control key on your keyboard and then click the thumbnail preview on the Layers palette to make a selection of that layer. Select Layer Transparency on the drop-down box. Click the layer below the woman 2 layer and then create a new layer. Once you've done that, fill it with black and then deselect. Set the blending mode to Overlay and the Gaussian Blur to around 6.8 pixels. Call it 'woman 2 shadow'.

6 Now repeat the previous step for selecting the woman 2 layer again and then go back to the woman 2 shadow and delete the selection. Set the opacity for this layer to around 62 per cent.

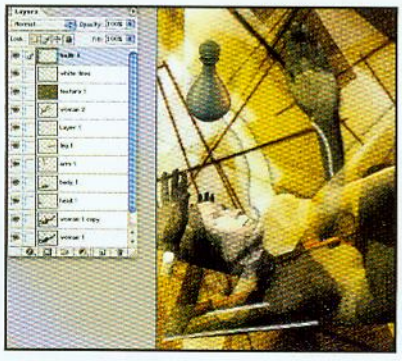
7 Still on the woman 2 layer, delete parts of the layer as above to give the figure a more abstract outline while retaining the Cubist style.

8 Open texture1.jpg from the cover CD and copy and paste it as the top layer in the illustration. Rename the layer 'texture 1' and then set the blending mode for this layer to Softlight. Experiment with your own textures, because you'll find that a simple change to the texture will give the illustration a different feel. You can even apply some artistic filters to the layer to produce varying results.

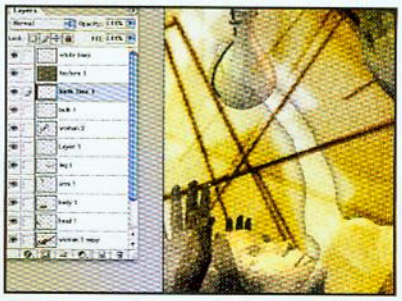
9 Create a new layer above the texture 1 layer and rename it 'white lines'. Make the foreground colour in the Tools palette white, and then select the brush from the Tools palette. In the Brushes palette, pick a small brush size and use the Wet Edges feature to paint a few strokes on the white lines layer. This will give a more artistic natural feel around the figure. See above for reference.

Part 6: Lighting up your image

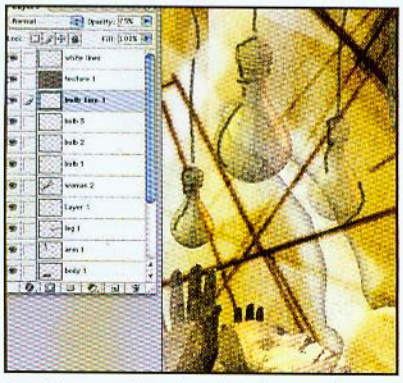
Bring the light bulbs into the environment and add a few sketches to improve the Cubist style...



1 Open your saved render of the bulb or open bulbren.tif from the CD. Use Load Selection to copy and paste the bulb as the top layer in the illustration. Now call the layer 'bulb 1' and scale and position it as in the above image.



2 Now drop the layer below the texture 1 layer and then open Levels and set the Input Levels to 0, 0.77 and 187. This should give the bulb a look more consistent with the rest of the image. Then set the opacity for this layer to around 51 per cent. Create a new layer above it and call it 'bulb line 1'. Using the same technique used for the white lines layer, sketch around the bulb with a black colour.



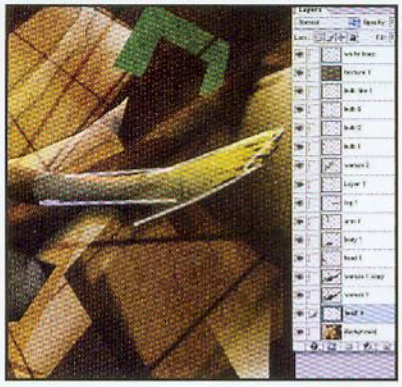
3 Now repeat the above step about another three times to make bulbs of varying sizes. Also, set their opacities at different percentages, but draw the extra lines on the original bulb line 1 layer.

Part 7: Finishing touches

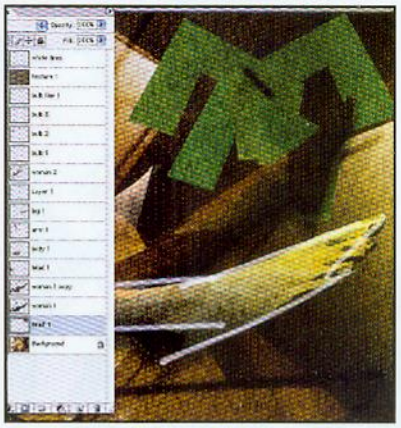
Add a plant and window to give the impression that the figure is actually in a room...

File browsing

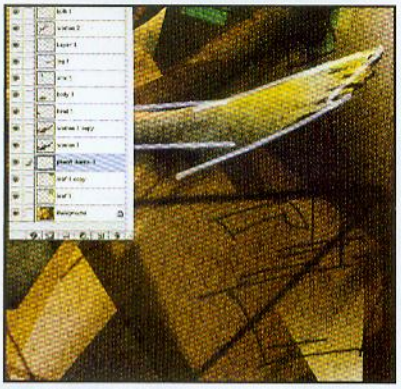
The file browser in *Photoshop 7* is a perfect tool for searching for files visually rather than by name. So if you create your own textures, make a folder specifically for saving interesting textures which you might want to use at a later date. Keeping them in one place will give you instant access and help you visually remember what they are, and why you saved them in the first place.



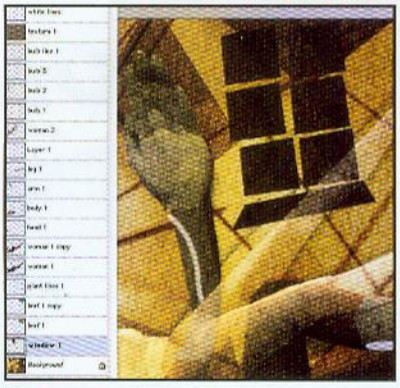
1 Click on the background layer and use the Polygonal tool to draw a shape of a square leaf. Copy and paste it, calling the layer 'leaf 1'. Open Hue/Saturation and set the Hue to +54 to give you a green colour. Then position the leaf in the top right of the illustration. See above for reference.



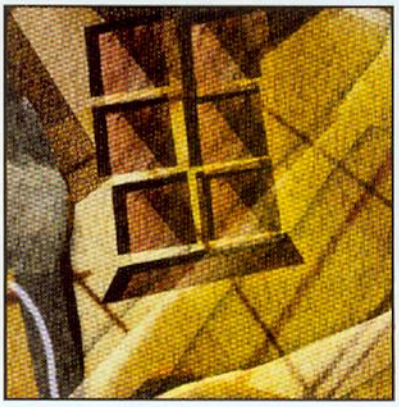
2 Duplicate the leaf 1 layer a couple of times then distort and flip it horizontally so it looks something like the above image. Once you've done that, merge the leaf layers into one layer.



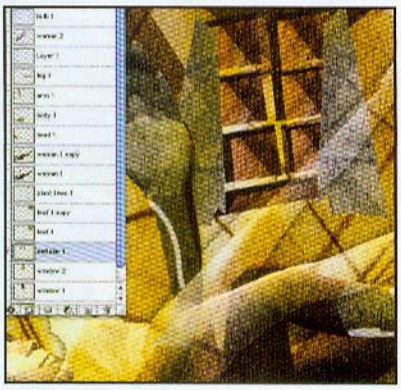
3 Now duplicate the leaf layer and set the copied layer's blending mode to Screen and offset it slightly to the original leaf layer. Then set its opacity to around 60 per cent. Create a new layer, call it 'plant lines 1' and sketch a plant pot and a plant stem as shown in the above image.



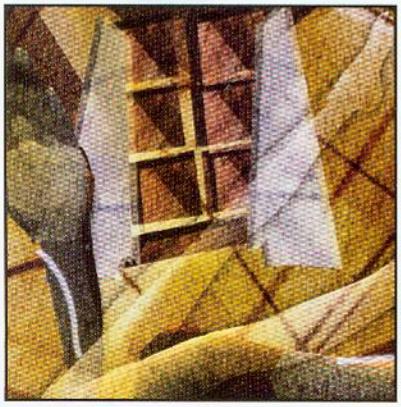
4 Using the same technique as we did for creating the plant leaves, create a number of shapes which resemble a window and its sill. Cut from the background and then paste it, and make the colour of the shape a dark brown. Call the layer 'window 1'. Position it as in the above image.



5 Duplicate the window 1 layer and call it window 2. Use levels to boost the contrast and brightness of the layer and then offset it slightly to the window layer below. Then set its blending mode to Screen.



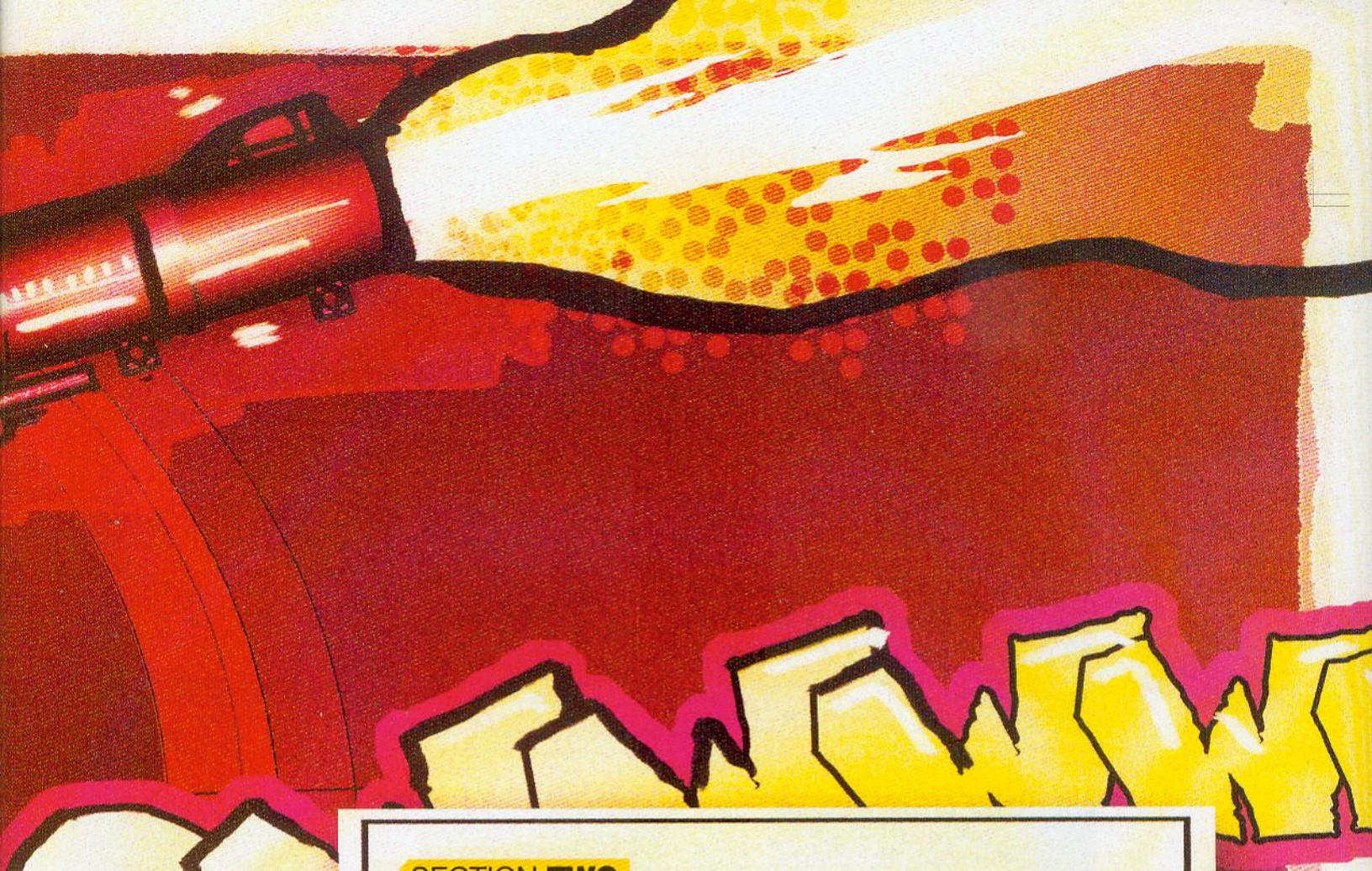
6 Using the same technique as we did for creating the plant leaves, create two shapes that resemble curtains. Cut them from the background and then paste them, then make the colour of the shape a light brown. Call the layer 'curtain 1', and position it as above.



7 Duplicate the curtain 1 layer and call it 'curtain 2'. Use Levels to boost the contrast and brightness of the layer and then offset it slightly to the curtain layer below. Then set its blending mode to Screen.

8 Create a new layer above the curtain 2 layer and call it 'window lines'. Then sketch some lines similar to the above image, using the brush and a dark colour. You may want to set the opacity of the layer to around 80 per cent to blend them a bit more in the background.

9 For the final step, use the Polygonal tool to create shapes that represent shafts of light coming through the window. Use the Gradient tool with foreground colour set to white, and have the Gradient tool set so that the background colour is transparent. Then create a new layer and call it 'shafts of light'. Create something similar to the above image. Once you've done that, set the layer's opacity to around 60 per cent. See jc_cubism_low3.psd for reference. CD-ROM



SECTION **TWO**

Recreate some retro comic art

Use *Photoshop* to create a double-page illustration with a yellowish look to give it the feel of old comics...

The natural progression of digital art from pen-and-ink to pixels has been just as relevant to the world of comic art as it has been in other areas of the creative world. For this tutorial, we take the creation of comic art on a computer one step further, and give the illustration a feel of old comic pages. Also, we show the progression from preliminary ink outlines to a completed illustration to give you a proper idea of what's involved. Familiarity with *Photoshop* and 3D software is beneficial if you want to achieve an illustration similar to the one pictured here.

Also see pages 68–72 to find out how artist Frazer Irving creates digital comic art for *2000AD*.

Expertise provided by Jason Cook. You can see a wide variety of Jason's work – in his Jacey, Jaroslav and Flatliner styles – at **[w]** www.jasoncook.co.uk. He can be contacted at **[e]** jc@jacey.com

All the components needed for this tutorial can be found on the cover CD. Go to: Software\Tutorials\Illustrator/Photoshop tutorials\Dual\Photoshop tutorial\Section 2.

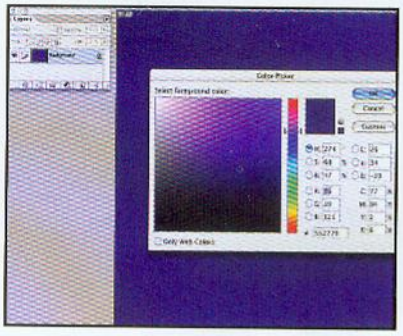
Illustration: Jason Cook **[w]** www.jasoncook.co.uk

Part 1: Setting the scene

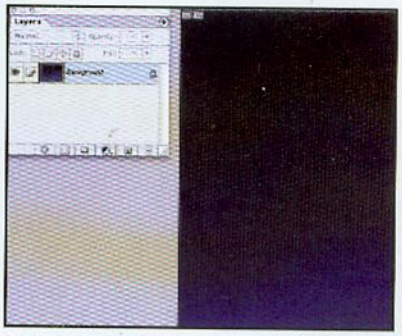
Start building up the background with simple elements and applied filters....

The birth of digital comic art

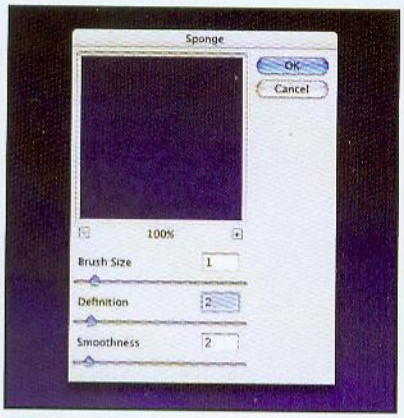
Digital comic art has been around since the late 1980s, with comics like *Shatter*. But it wasn't until the beginning of the 90s that things really started to happen. *Batman: Digital Justice* by DC Comics was a great example of a Digital Graphic Novel. Illustrated by Pepe Moreno on a Macintosh II system with 8MB of RAM and a 45MB hard disk drive, *Digital Justice* truly pushed the boundaries of where comics could go, even though the system on which Pepe worked seems antiquated by today's standards.



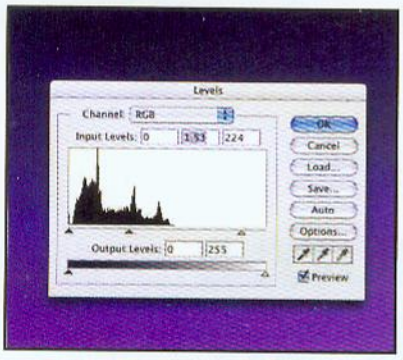
1 Create a new document by going to File>New. In the dialog box, set the preset size to Custom. Then set the width to 45cm wide and 32cm high. The resolution should be set to 72 pixels/inch, and the mode set to RGB. Don't worry about contents. Click OK. Then click on the foreground colour in the Tools palette and set the colour to R:85, G:39, B:121. Click OK again.



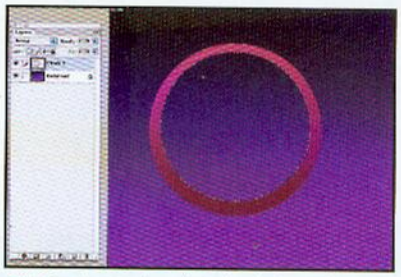
2 Now set the foreground colour to black by clicking the little black-and-white icon under the colours on the Tools palette. Select the Gradient tool on the Tools palette and, in the options bar at the top, make sure the Gradient tool is set to 'foreground colour to transparent'. Then drag your pointer from the top downwards and release it to create a gradient.



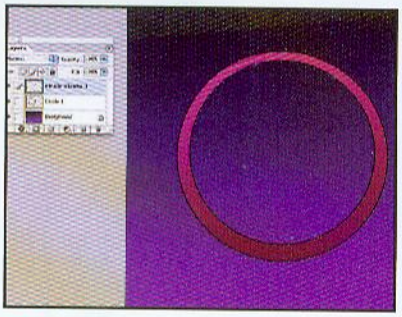
3 Go to Filter>Artistic>Sponge and set Brush Size to 1, Definition to 2 and Smoothness to 2. This will help give the background a more textural feel, something similar to paper.



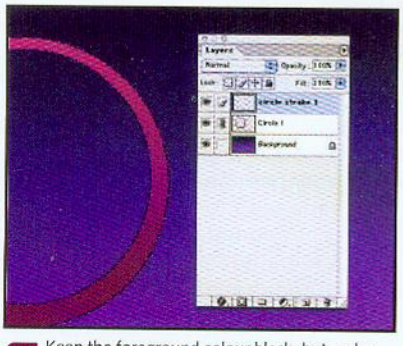
4 Now brighten the layer a bit. Open Image> Adjustments>Levels and set the Input Levels from left to right as: 0, 1.53, 224. Then click OK. This brings out the texture a lot more. Now save this document to your hard drive. See jc_low_comic.psd (on the cover CD) for reference.



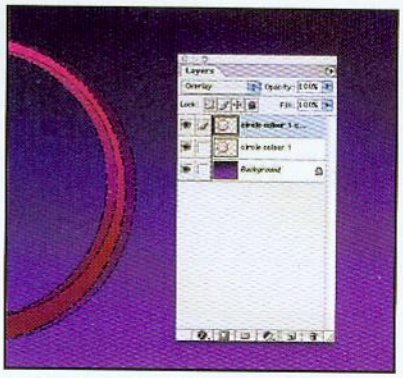
5 Create a new layer by going to Layer>New> Layer and then call the new layer 'circle 1'. Now using the Elliptical Marquee tool in the Tools palette, draw a circle and then fill it with a gradient. Set the foreground colour to R:141, G:3, B:80, and the background colour to R:205, G:95, B:142. Then draw another circular selection in the middle and delete part of the gradient. Don't forget to switch the Gradient tool options in the options bar so it uses both colours.



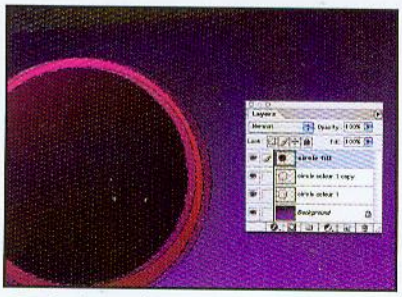
6 Click on the circle 1 layer on the Layers palette while holding down Control, and then click Select Layer Transparency. This creates a selection around the circle 1 shape. Create a new layer and call it 'circle stroke 1'. Then, with the foreground colour set to black, go to Edit>Stroke and set the Width to 3 pixels. This creates a black stroke around the circle shape. Deselect.



7 Keep the foreground colour black, but make the background colour: R:130, G:76, B:136. Then go to Filter>Brushstrokes>Spatter and set the Spray Radius to 14 and the Smoothness to 7. Click OK. Keeping the background colour purple will help the keyline to blend into the background more. Now link the 'circle stroke 1' layer with the 'circle 1' layer in the Layers palette and then go to Layer> Merge Linked.



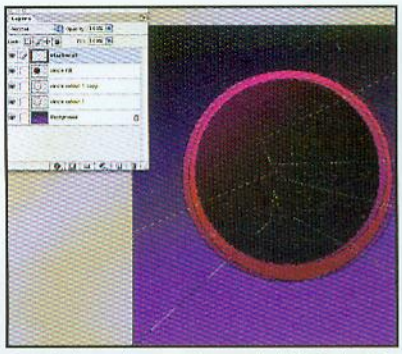
8 Rename this layer 'circle colour 1'. Drag the layer in the Layers palette down to the Duplicate Layer icon. Then use the Move tool from the Tools palette to move it to the right so it's offset from the original layer. Now set the blending mode for this layer to Overlay at the top of the Layers palette.



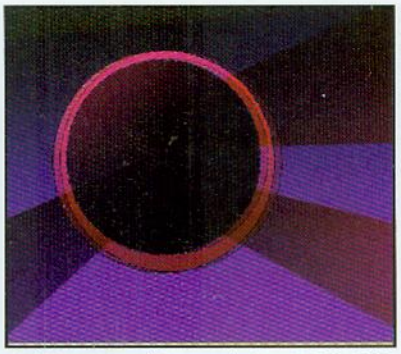
9 Create a new layer and call it 'circle fill'. Then select the Magic Wand tool from the Tools palette and make sure the Tolerance is set at 32 in the options bar. Then click on the circle colour 1 layer in the Layers palette and click the Wand in the middle of the circle, so that you're selecting the empty hole. Then go back to the new layer, set the foreground colour to R:130, G:0, B:76 and the background colour to R:15, G:11, B:13. Then use the Gradient tool from top-left to bottom-right to fill the selection.

The natural look

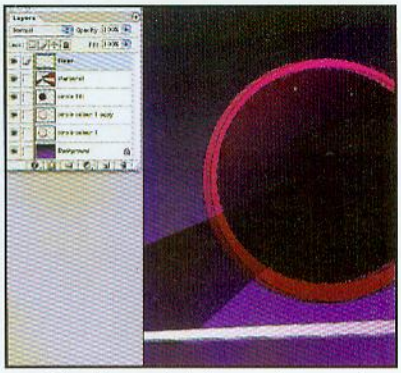
When working with *Photoshop*, try to avoid using the obvious tools and filters, because the result will look like it's been produced by digital software. The trick is to make it look like it's actually been created naturally rather than digitally.



10 Make another new layer and call it 'starburst'. Then, using the Polygonal tool, create three selections like the above image. When you've made one, hold Shift so that you can draw the other two selections.



11 Now set your foreground colour to R:70, G:13, B:27, then the background colour to R:163, G:31, B:34. Use the Gradient tool to fill the selection. Once you've done that, turn the blending mode for this layer to Overlay and deselect.



12 Using the same techniques as above, create a new layer and call it 'floor'. Create something similar to the above image. Then save the resulting *Photoshop* document to your hard drive.

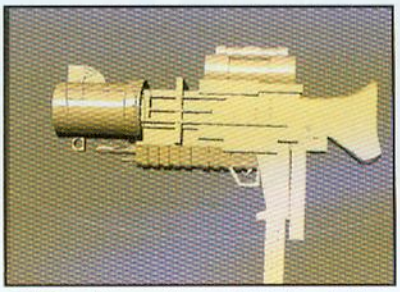
Part 2: Generating 3D renders

In this part, we generate 3D renders using *Poser*. These will be used as a base layer over which to draw and paint...

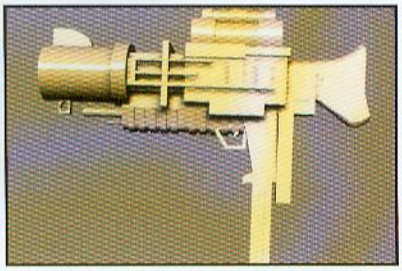
Spattering effects

The Spatter filter within Brushstrokes is a simple filter which can make your keylines and outlines have a more natural ink feel. Experiment, but keep it subtle.

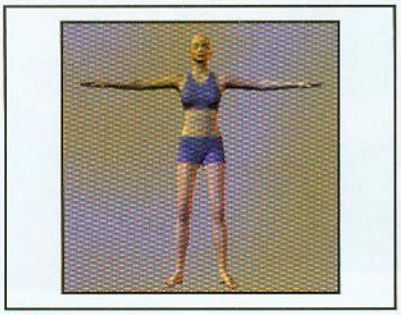
1 Using a 3D application of your choice, create a simple 3D model of a futuristic looking weapon, something which our heroine can use and hold. Use simple primitive shapes to generate the model. Our original model has been included on the cover CD as a DXF file (see gun.dxf).



2 Open *Poser* and then go to File>Import.dxf and locate the gun.dxf file on the cover CD. Use the editing tools in *Poser* to position the gun as above. Then go to Display>Ground Shadows and switch them off. Now position three lights pointing at the gun. Don't worry too much about this, as long as the gun is evenly lit.

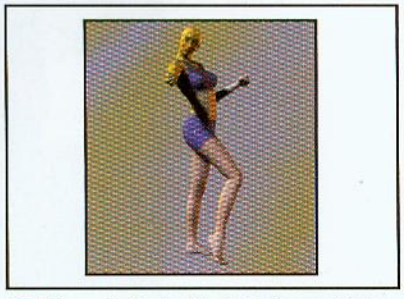


3 Now go to Render>Render Options and click on New Window. Set the width to 1000 pixels and the height to 1000 pixels. Resolution can be set at 72dpi, the Surface Detail section can all be switched on, and Render Over can be set to background colour. Click OK, then go to Render>Render. Once the gun has rendered, save it as gunren1.tif.



4 Start with a new document using any female Poser figure. Don't worry about clothing or hair, since you'll be working over the top of the render in *Photoshop*. A good texture map for the face is advisable. There's a render included on the cover CD if you need it.

5 Use the editing tools in *Poser* to position the figure in a pose similar to the above image. Then go to Display>Ground Shadows and switch them off. Now position three lights pointing at the figure. Don't worry too much about this, as long as the gun is nicely lit. (Get those priorities right!)



6 Now go to Render>Render Options and click on New Window. Set the width to 1000 pixels and the height to 1000 pixels. Resolution can be set at 72dpi, the Surface Detail section can all be switched on, and Render Over can be set to background colour. Click OK then go to Render>Render. Once the figure has rendered, save it as girlren.tif.

Part 3: Start working in Photoshop

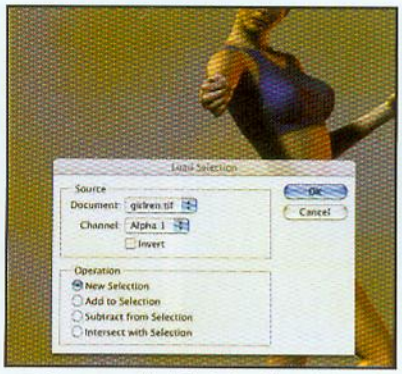
With the 3D elements rendered, bring them into *Photoshop*...

Transparency effects

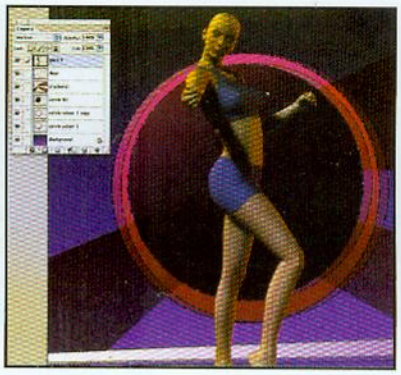
You can achieve some nice transparency effects by enabling Wet Edges in the dynamic brush palette. If you use a pressure-sensitive tablet, play around with the dynamic options, because you can achieve some really nice results by letting the stylus pressure control the opacity of the brush.

3D renders

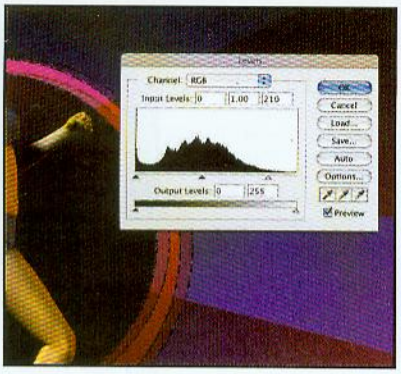
Using 3D rendered objects can actually help you get a more accurate result rather than trying to draw something from scratch. You may find that you can actually build something in 3D quicker than you can draw it. Then you can use it as a base layer in *Photoshop* and trace over it or apply filters to get the desired look you're after.



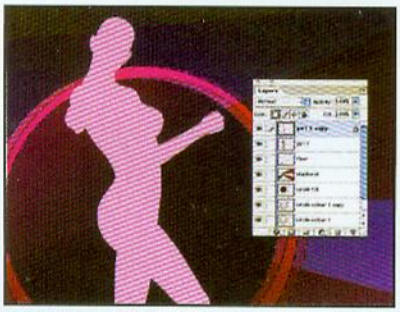
1 Open our original *Photoshop* file and then also open girlren.tif. Go to Select>Load Selection and in the Source field, make sure Document is set to girl.tif and Channel is set to Alpha 1. Then choose New Selection under Operation. Click OK. This will now create a selection around the figure.



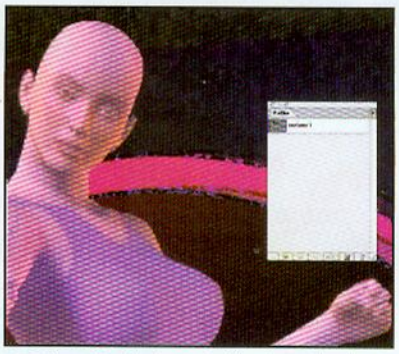
2 Go to Edit>Copy and then switch back to our illustration. Go to Edit>Paste. Make sure the girl is pasted as the top layer in the Layers palette. If not, move her up by dragging the layer to the top of the Layers palette. Then call the layer 'girl 1'. Use the Move tool to position it as the above image.



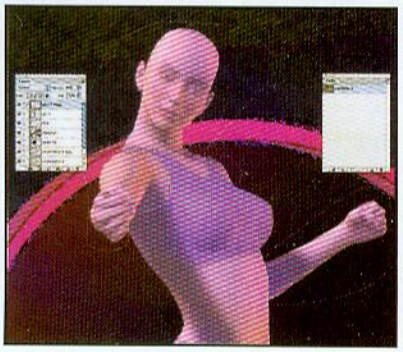
3 Now open the Levels dialog box (Image> Adjustments>Levels) and boost the contrast of her by setting the Input Levels from left to right with 0, 1.00, 210. Click OK. Depending on how you rendered your figure, you may need to compensate more or less within the Levels dialog box.



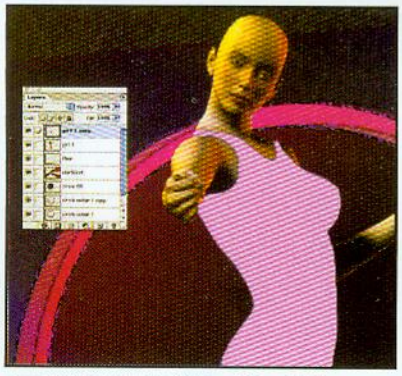
4 Duplicate the girl 1 layer, then click on the Transparency Lock at the top of the Layers palette (the icon next to the word 'lock'). Now set the foreground colour to R:254, G:169, B:252. Then go to Edit>Fill and fill the layer with a pink colour. This should fill the figure and nothing else. Then unlock the transparency for this layer by clicking on the icon again.



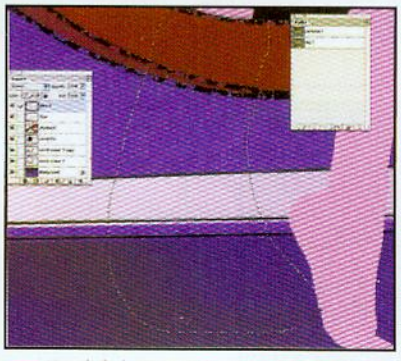
5 Zoom in to the top part of the figure's head and shoulders. Then set the opacity for the pink figure layer to around 50 per cent in the Layers palette, so that the figure underneath shows through. Open the Paths palette and create a new layer by clicking on the new paths icon. Call it 'costume 1'.



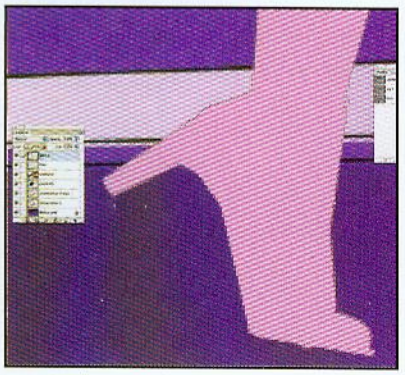
6 Click on the Pen tool in the Tools palette and then draw around the figure's arms and head like the above image. Delete parts of the pink layer so that the figure's head and neck show through, as do her shoulders and arms. It should give the impression that she's wearing a pink jump suit.



7 Staying with the Paths palette, click the Make Selection icon at the bottom of the Paths palette so it turns the paths into a selection. Then press Delete on your keyboard so that it deletes the pink areas you've selected. Once that's done, turn the opacity for this layer back up to 100 per cent and deselect.



8 Now link the two girl layers together and merge them so they become one. Make sure the layer is still called 'girl 1'. Now move down towards her feet and, using the Pen tool, draw around the right leg as above, turn it into a selection and then delete it. Call the path 'layer leg 1'. This will give the impression that she's stepping out of the circle shape.



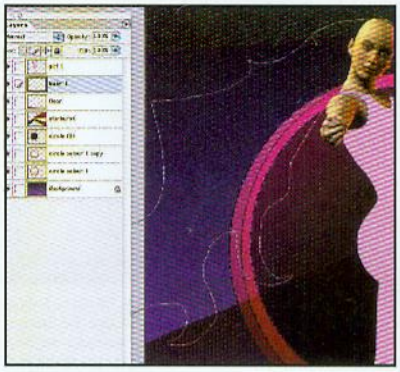
9 Use the Pen tool again to create a new path layer and call it 'boot'. Draw around the remaining foot to give the impression that she's wearing a high-heeled boot. Something similar to the above will be fine. Then turn it into a selection and fill it with a pink similar to that of her suit. Make sure you fill the colour on the girl 1 layer.

Part 4: Introducing natural effects

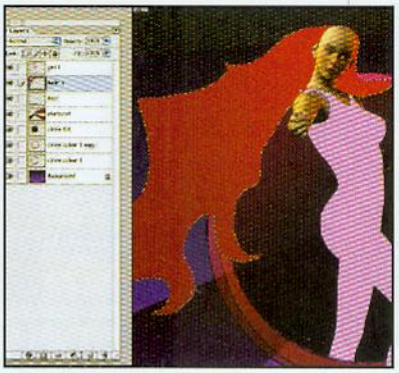
Add the gun to the image and give our heroine some hair. Then start to apply some natural media effects...

Know your Pen tool

Explore the Pen tool and practise drawing curves with it by using the convert point. This is great for generating vector art within *Photoshop*, as well as creating clean and precise selections.

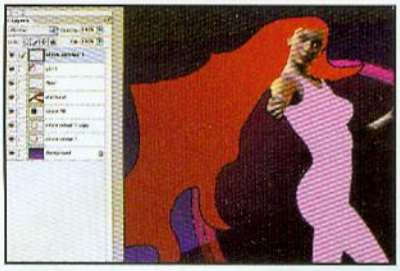


1 Create a new layer in the Layers palette below the girl 1 layer and call it 'hair 1'. Then create a new layer in the Paths palette and also call that 'hair 1'. Next, use the Pen tool to draw a shape similar to the above image – this will give the impression of large flowing locks of hair.

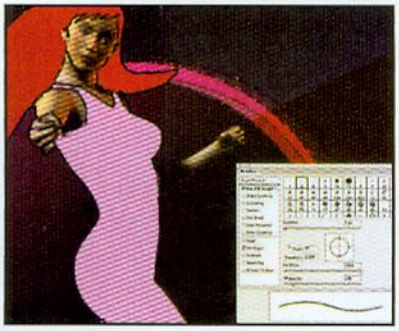


2 Turn the path for hair 1 into a selection, then use a foreground colour set at R:233, G:25, B:36 and then the background colour set at R:163, G:31, B:34. Use the Gradient tool across this selection as in the above image, making sure that the hair appears behind the figure.

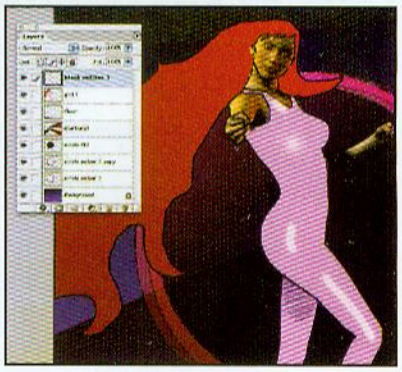
3 Create another new layer and make this the top layer in the Layers palette. Call it 'hair 2'. Then create another layer in the Paths palette and also call that 'hair 2'. Using the Pen tool enables you to create the hair in front of her head. Fill it with the foreground colour (not a gradient) this time.



4 Now link the hair layers with the girl layer and merge them into one in the Layers palette. Use the Select Transparency option to create a selection around the figure. You might have to rename the girl layer as 'girl 1'. Now create a new layer above the girl and stroke the selection around 3 pixels with the colour black. Make the background colour a dark purple and apply the Spatter filter to the outline after you've deselected. Rename this layer 'black outline 1'.

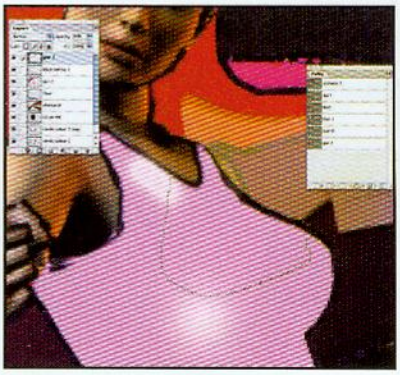


5 Staying on the black outline layer, select the Brush tool. In the Brushes palette, select a brush at around 3 pixels and have only the Wet Edges option selected. Then paint in around the figure, focusing on the area around her head, face and hair. Also paint around her neck and shoulders and arms. See above for guidance.

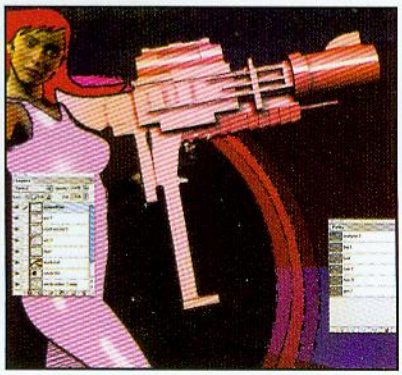


6 Let's also add some white highlights to her suit. Use a larger brush size and set the foreground colour to white. Then paint some highlights around her legs and on her chest, just enough to give the impression that the light is catching her suit.

7 Open gunren1.tif and load its selection channel. Go to Edit>Copy and paste it as the top layer in the illustration. Call the layer 'gun 1'. Then go to Edit>Transform>Flip Horizontal, and then Edit>Transform>Scale to scale the gun to a similar size to the one in the above image. Then move the gun into position so it looks like she's holding it. You may want to use Edit>Transform>Rotate to reposition the gun slightly.



8 Set the opacity for this layer to around 50 per cent so you can see the figure below the gun. Now create a new path in the Paths palette and call it 'gun 1'. Draw a path around the butt of the gun so it looks like it's resting on her shoulder, and then turn the path into a selection and delete it. Once you've done that, set the opacity back to 100 per cent.



9 Open Image>Adjustments>Hue/Saturation and set the Hue to -32 and Saturation to around +54. Leave Lightness at 0 so the gun is more saturated and has a reddish cast to it. Then click OK. Create a selection around it, create a new layer and call it 'gun outlin'. Stroke it with a black outline and apply the Spatter filter.

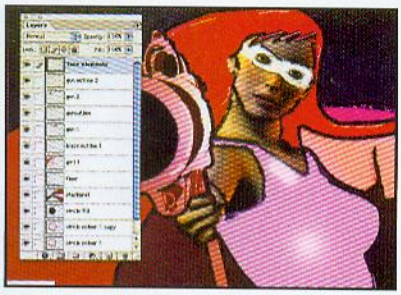
Introducing natural effects continued...

Aim for imperfection

Natural media tends to be imperfect, whereas digital art can be all too perfect. The real world is full of imperfections, so try to make your illustration reflect this. For example, simply adding grain can make the whole illustration have a totally different feel.

10 Using the same techniques you used for touching up the women – that is, adding black paint lines and white highlights – do the same for the gun. Apply the touch-ups on the gun outline layer in the Layers palette.

11 Now open gunren2.tif and do everything that you've just done to the gunren1.tif file. Position the extra weapon as in the above image. You'll also have to fill the inside of the barrel with a very dark colour. Also, try using the levels to boost the contrast of the weapon. Once you've done all this, save the illustration to your hard drive.

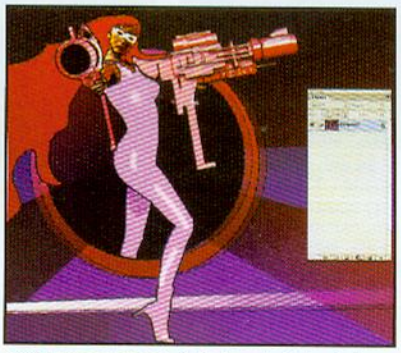


12 Create a new layer and call it 'face elements'. Use the Brush tool with Wet Edges applied to paint a mask on the figure's face, and then add further black outlines and white highlights to strengthen the mask. Also add a few black outlines to the figure's lips and hair and some white highlights to her hair. Save the file to your hard drive. See jc_low_comic.psd on the CD for reference.

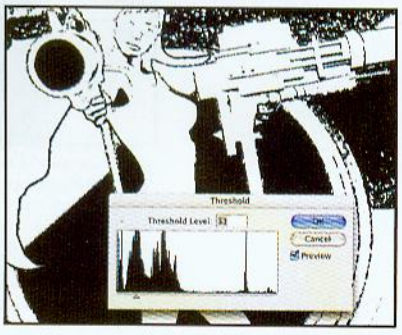
Part 5: Highlights and lowlights

In this section, add the black-and-white preliminary draw effects and give the illustration a half-completed feel...

1 Flatten the illustration by going to Layer> Flatten Image and then resave the illustration with another name so you don't overwrite the original illustration. Now duplicate the flattened layer. Staying with the duplicated layer, go to Filter> Artistic>Cutout and set the number of levels to 8, Edge Simplicity to 1, Edge Fidelity to 1 and then click OK. Then set the blending mode for this layer to Overlay and the opacity to around 5 per cent.

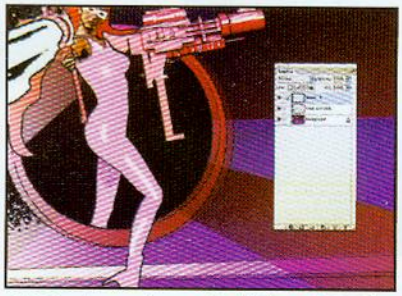


2 Now open Image>Adjustments>Colour Balance and set the colour levels for the midtones to: +81, -68 , +26. Click OK. Again, flatten the image. The illustration should now look a lot richer in colour.

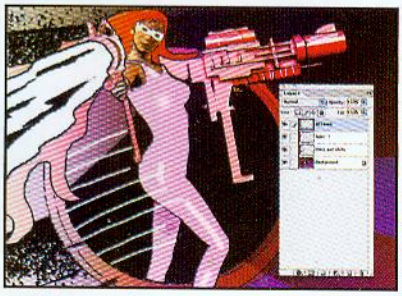


3 Once again, duplicate the flattened layer and then go to Image>Adjustments>Threshold and set the Threshold Level to around 31. This should give you a nice black-and-white pen-and-ink look with a textural feel. Call this layer 'black and white'.

4 Switch to the Lasso tool and then loosely select the right-hand side of the image and let the selection go down the centre of the figure. Once you've done that, go to Select>Feather and set the Feather Radius to around 222 pixels. Click OK and then press Delete on your keyboard so that the right-hand side now shows the layer beneath and there's also a gradual blend between each of the layers. You may need to press Delete again to get more of the figure showing through.



5 Create a new layer and call it 'laser 1'. Use the Lasso tool to create a selection shape coming out of the left weapon, and fill it with a white colour and stroke with black. Inside this area, create a number of smaller selections and fill them with black. Once you've done that, add the Spatter filter. Save the file to your hard drive.



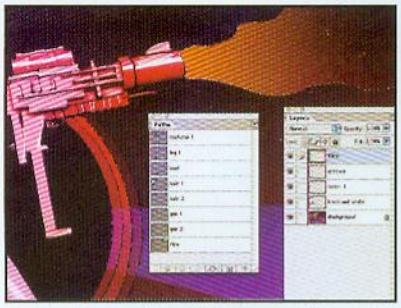
6 Create another new layer and call this 'arrows'. Add a number of arrows as above and also add a few white horizontal lines in the black area of the circle shape. You can also add a few black highlights around her boot and a few white highlights around the floor. Use the Lasso tool and the Brush tool for these elements.

Part 6: Dramatic finishing touches

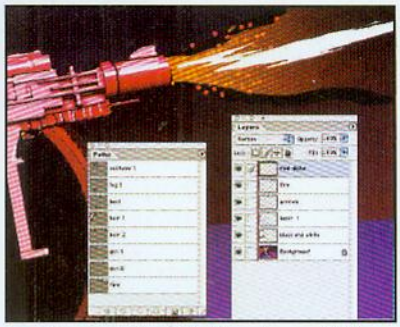
In this final section, the focus is on the fire coming out of the gun and the text. You'll also add the Grain filter to give the illustration the feel of an old page from a comic...

Adjust levels

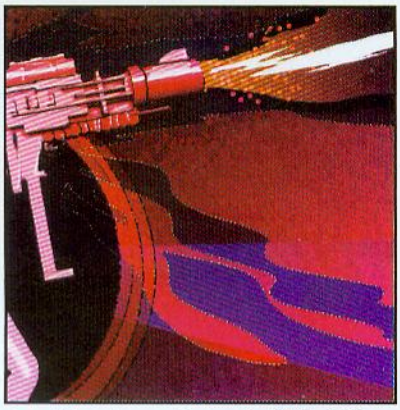
Levels is a great tool in *Photoshop*. Once you've completed this project, see if you can adjust the levels even more for varying effects. Also try adjusting the Hue and Saturation of the illustration to see what interesting results you can get.



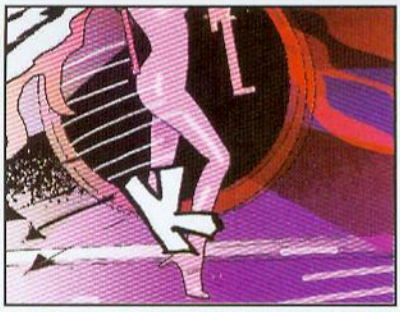
1 Create a new layer in the Layers palette and call it 'fire'. Then create a new layer in the Paths palette and also call that 'fire'. Use the Pen tool to create a path shape coming out of the right-hand weapon. Once you've done that, select an orange colour as the foreground colour and then turn the path into a selection and use the Gradient tool to make a gradient in the selection. Make sure the gradient goes from orange to transparent.



2 Now use the Lasso tool to make some thick dark edges to the fire. Also add a white jagged shape in the middle of the fire, again using the Lasso tool. Once you've done that, create another new layer and call it 'red dots'. Then add a number of red dots with the Elliptical Marquee tool similar to those above and then turn the blending mode for this layer to Screen.



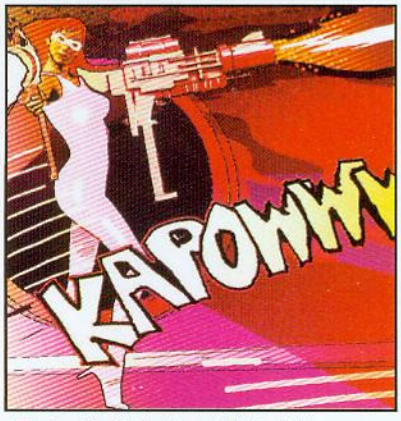
3 Add another new layer and call it 'fire 2'. See above for reference. Add a few larger shapes with the Lasso tool around the gun and fill them with a red colour. Set the blending mode to Overlay.



4 Now you need to add the large sound effect KAPOWWWW. Create a new layer and call it 'K' and do the same in the Paths palette. Then use the Pen tool to draw the letter K. Once you've done that, turn the path into a selection and fill it with white. Then use the Brush tool without any dynamic effects on and after you've deselected, paint around the letter K quite loosely.

5 Follow the same procedure as in the previous step, but now do it for each of the letters until you have a number of layers that together spell out KAPOWWWW. Once you have done them all, merge all the letters together so there's only one layer spelling the word KAPOWWWW. Rename the layer KAPOWWWW as well.

6 Select the Magic Wand tool and select all the white areas of the letters, holding down Shift so they all remain selected. Using the colour yellow, select the Gradient tool and create a gradient from right to left – again, setting the Gradient tool so that it goes from yellow to transparent. Then select the whole of the word and create a red stroke around it. Set the stroke option to Outside and the pixel width to around 3 pixels.



7 Save the illustration and flatten it, then save this new flattened version to your hard drive. Now open the Colour Balance dialog box and set the Midtones to +61, 0, -56, and then set the Highlights to +23, 0, -49

8 Now go to Filter>Texture>Grain and set the Intensity to 27, Contrast to 49 and the Grain Type to Soft. This should now give the comic illustration a nice grainy texture and complete the look we're after.

9 As a finishing touch, you can create a new layer and add a speech bubble. Once you've done that, you can add the Grain filter to the layer as well. You may also want to add other elements or thicken parts of the outlines around the character to give it more strength. CAP

Illustration: Jeremy Sutton [w] www.jeremysutton.com

SECTION **THREE**

Produce an Impressionistic painting

We show you how to use *Painter* to create an oil painting in the tradition of the Impressionist painters, using a photograph for visual source material...

When it comes to simulating natural media via digital means, there's no better tool than Corel *Painter 8* used in combination with a Wacom tablet and a good dose of artistic vision and creative enthusiasm.

All the artwork included in this article was created on an Apple PowerBook G4 (1GHz, 512MB RAM) running Mac OS 10.2 with Corel *Painter 8* and the Wacom Intuos2 Platinum A5 graphics tablet.

If you have a recent version of *Photoshop* or *Painter*, or have *Painter Classic*, which comes with all Wacom tablets, then you're eligible to purchase an inexpensive upgrade to *Painter 8*. By the time this article is printed, a free upgrade to Corel *Painter 8.1* will be available from [w] www.corel.com. Besides offering many bug fixes, in this upgrade Corel has reintroduced the Custom palettes, which allow you to make buttons from any menu commands as well as tear off your favourite brushes.

There are no right or wrong ways to create a digital Impressionistic work. Whatever you do, you're not going to break your computer, *Painter* or your tablet, so be adventurous and have fun!

Expertise provided by Jeremy Sutton. Jeremy is an internationally renowned portrait artist, author and educator based in San Francisco. He has written a number of books, two of which are reviewed on pages 92-93. You can see more examples of his artwork at **[w]** jeremysutton.com

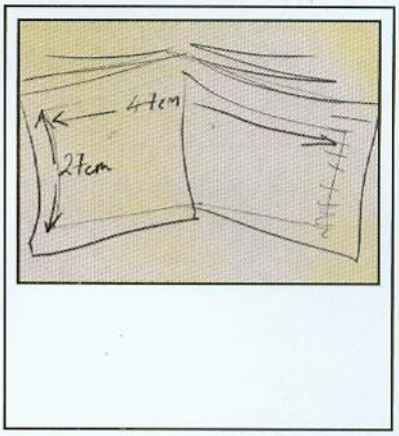
Part 1: Getting organised

Organise your files, folders and naming conventions…

The importance of being organised

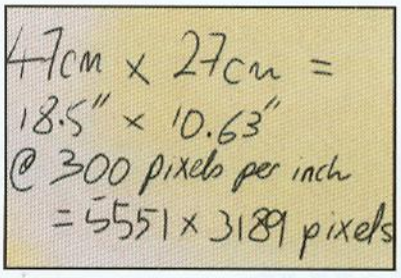
Being organised in saving and naming your files is essential to freeing yourself up to be at your most creative. It also empowers you to fully utilise your creative process and conveniently access and recycle parts of earlier versions of your image. At every stage in this project, use the Save As command to save different versions of your working image. For this project, I ended up with 21 versions.

1 This project involves creating an oil painting based on a photograph, in this case a picture taken by Californian portrait artist Lisa Evans. For my image, I envisioned a style of brush stroke that was both impressionistic in catching the effect of natural light and expressionistic in using colours that came from my imagination as well as from the original photograph.



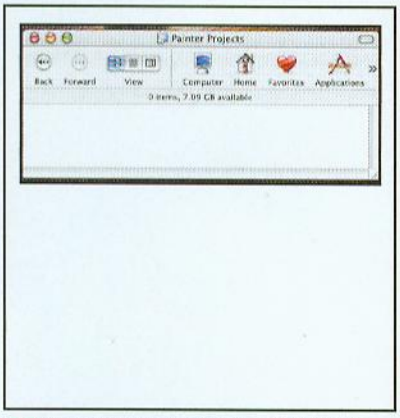
2 Before you dive in and start a project, ask yourself what size, medium and usage your final product is going to be.

3 What sort of border do you want to create? Do you want the paint to blend into white for printing on watercolour paper and float mounting, or do you want the paint to go right to the sharp edge of the digital canvas for a matted print or framed canvas print? Do you need to add extra pixels to your original source image? Since this is an oil painting, I decided to paint right up to the edge of the canvas.



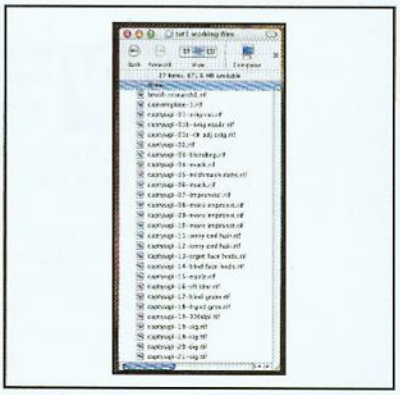
4 Decide what file size you need. Here, the parameters were determined by the need to create an artwork for a double-page spread in a magazine. That, in turn, gave me the file size of 47cm wide by 27cm high at a resolution of 300 pixels per inch. If I was aiming to create a large fine art print on canvas or watercolour paper, I would have based my file size on the final desired print dimensions at 150 dpi, a resolution which I find works fine for my expressionistic *Painter* images.

5 Are you sitting comfortably at your computer with your tablet and screen in front of you? Are you holding your stylus with the side of your palm resting on the tablet? Is the ambient light level and location of your screen such that your eyes are comfortable? Physical comfort is important to allowing you to make the computer invisible as you create your composition.

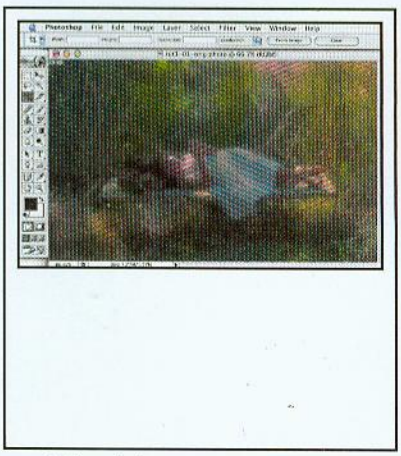


6 Before starting on a project, consider where you want to save your project files on your hard drive. Make a decision and stick to it.

7 Think about how to organise your saved files. How will you group saved versions? For example, by project, date or subject?



8 What naming convention will you adopt for all files connected with this project (for example, YY.MM.DD-subject-01-brushused.rif or subject-01-brushused.rif)? Make sure all title data to the left of the version number remains the same for all the files in a given project.



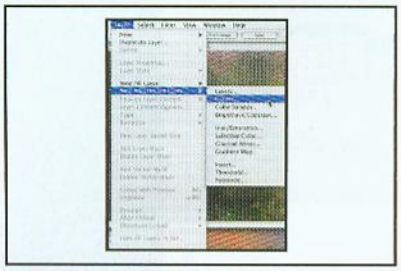
9 At the end of your preparations, open your source photograph in *Photoshop* and, if you need to, crop it using the Crop tool.

Part 2: Setting up your canvas

Make a master file in *Photoshop* and prepare a canvas in *Painter*...

Restarting mid-project

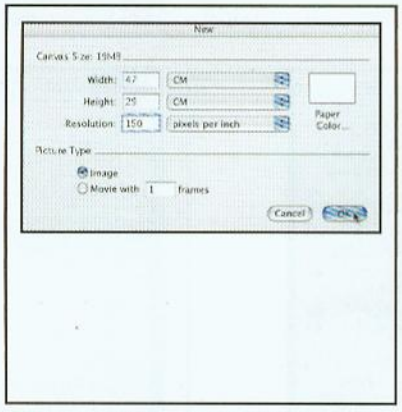
If you find things slowing down as you work then save all your current working files, quit out of *Painter* and restart the application. Note that after restarting the program, you'll have to reopen your original image and manually reset it to be your Clone Source (File>Clone Source). Your original image and your current working files both need to be open at the same time in *Painter* when you're cloning colour from an original image.



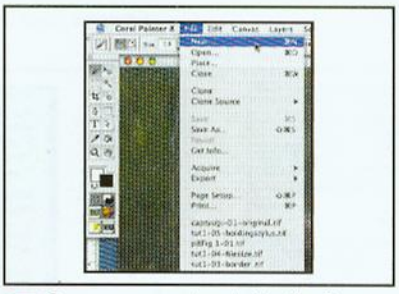
1 Select Layer>New Adjustment Layer>Levels, Curves and Hue/Saturation to make adjustments to your image. When satisfied, save the file in TIFF or *Photoshop* format (with the Adjustment Layers) as your master file. Call it something like 'subject-master.psd'. The Adjustment Layer settings in the master file can always be edited at any time.

2 In the Layers palette pop-up menu, select Flatten Image. Resave the flattened image as a TIFF file with a name similar to 'subject-flt-adstd.tif'. If you save a TIFF with Adjustment Layers and then open it in *Painter*, the adjustments are not applied. You need to create a flattened version of the file first. Ensure your master file is at least the size of the final image you want to create. If it needs increasing in size, do this in 10 per cent increments.

3 Always restart *Painter* every time you start a new project. This is important for clearing the memory in your computer.



4 Open your source photograph (flat TIFF or JPEG file) in *Painter*.



5 Open a new canvas by selecting File>New (Cmd/Ctrl-N). Change the new file dimension units from pixels to cm (or inches). Specify your desired final print size and resolution. Resolution is typically 150 to 300 pixels per inch, depending on your media and style of artwork. If in doubt, check with your printer – *before* starting. Select OK in the New File window. You'll now see a blank canvas.

6 It's time to start painting on your canvas, so go to Artists>Sargent Brush.

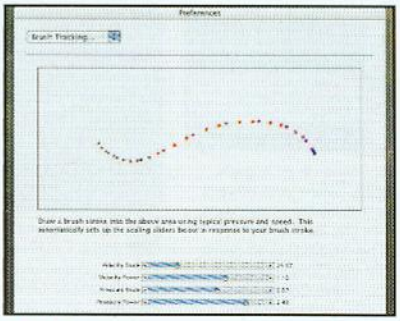
Part 3: Getting the best out of your stylus

It's time to get stuck into the creative process...

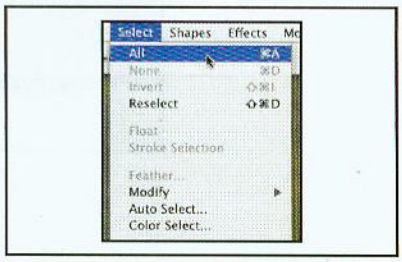
Brush libraries

Illustrator has a number of tools and features that can help in the creation of natural media effects. Possibly the most useful is the ability to create and edit a variety of brushes, which can be saved and stored in custom brush libraries for future use.

1 Make a single test brush stroke starting with low pressure and gradually increasing to high pressure. You can do this on your image and just Cmd/Ctrl-Z immediately afterwards. You should be able to get smooth transition from small to large brush stroke diameter as you paint, by adjusting the pressure you apply to the stylus from low to high.



2 If the stroke diameter jumps suddenly, choose Corel Painter 8/Edit>Preferences>Brush Tracking. Make a single light stroke in the Brush Tracking scratch pad. Click OK and try your brush stroke on your canvas again. If needed, repeat the process till you're satisfied with the stylus response.



3 Copy your photo into the memory by clicking on your original image so it's the active image in *Painter* (you can always tell which is the active image by looking at which image name has a checkmark by it at the bottom of the Windows menu), then choosihng Select>All (Cmd/Ctrl-A) followed by Edit>Copy (Cmd/Ctrl-C) followed by File>Close (Cmd/Ctrl-W). Close the original image without saving changes.

Getting the best out of your stylus continued...

Use Free Transform to resize down

It's better to use Free Transform to resize down in size rather than resize up, since the image quality will be adversely affected by significant resizing up. Any increases in size are best done in *Photoshop* in 10 per cent increments prior to opening the source image in *Painter*.

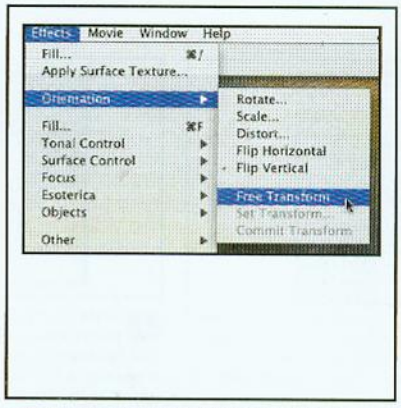
Save As button

In the *Painter 8.1* Custom palette, make a Save As button. This will be useful for saving versions as you work. You can always use the Save As keyboard shortcut Shift-Cmd/Ctrl-S. Be wary of accidentally updating your file with a File>Save or Cmd/Ctrl-S.

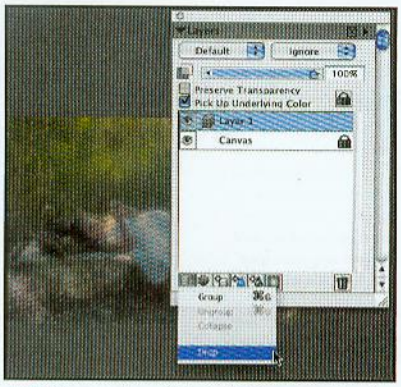
Clone button

In the *Painter 8.1* Custom palette, make a Clone button. You'll find this a useful tool anytime you're working with photographs in the program.

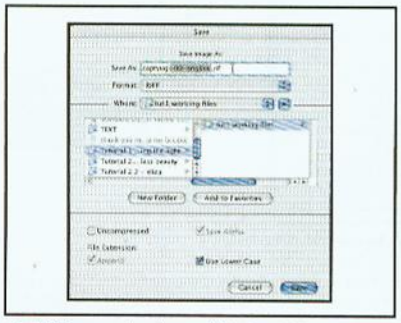
4 Now click on your new blank canvas so it becomes the active image. Choose Edit>Paste (Cmd/Ctrl-V). This pastes your original image as a layer in your new canvas and automatically selects the Layer Adjuster tool in the Tools palette. Click and drag the layer to reposition it, producing a satisfactory composition.



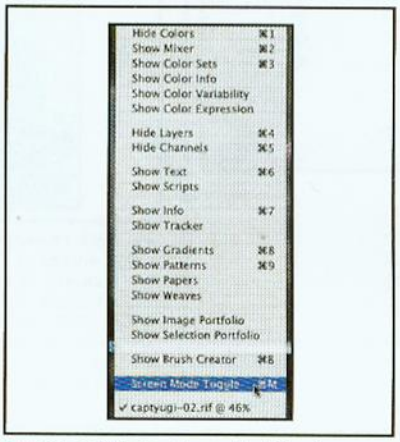
5 If you find you need to slightly reduce or increase the size of your pasted layer, choose Effects>Orientation>Free Transform. This converts your layer from a regular image layer to a reference layer. Hold down the Shift key and drag in the corner handles to resize the layer without distortion, keeping the aspect ratio (width to height) constant.



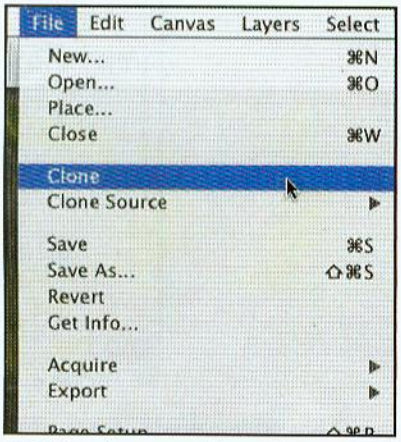
6 When you're satisfied with the composition in the new canvas, choose Drop from the Layers palette pop-up menu. This option can be accessed by clicking on the small solid black triangle in the top-right corner of the Layers palette, or from the pop-up menu which appears when you click on the Layer Commands icon (the left-hand of the six icons at the bottom of the Layers palette).



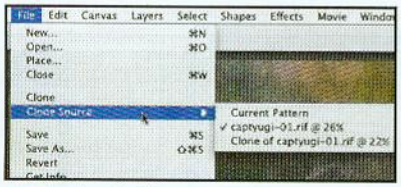
7 When you've dropped the layer into your new canvas, choose File>Save As. Name this file with a consistent file name prefix, and then add a version number: 00-original. Save into your project folder. All subsequent versions of this file should be saved into the same folder location with consistent file names and consecutive version numbers. Doing this ensures you have easy access to your original image and all intermediate versions any time you wish to continue working on the project.



8 Choose Window>Screen Mode Toggle (Cmd/Ctrl-M). This mounts your working image so your desktop is as uncluttered as possible. Work in Screen Mode whenever possible.

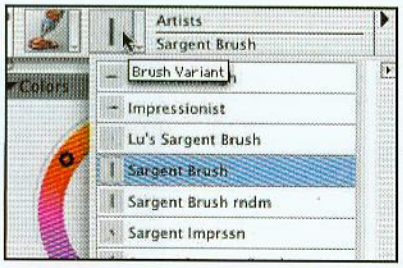


9 Make a clone copy. With your flat, resaved original image active, choose File>Clone. This creates a duplicate image that has Clone of... at the beginning of the file name.



10 In using the Clone command on an original image, you automatically define your original image as Clone Source and will see the image name with a checkmark by it when you look at the File>Clone Source menu. This means that all cloner brushes (brush variants from the Cloners category or brushes that have the Use Clone Colour icon activated in the Colours palette) will look to the original image for their colour. Cloning in *Painter* is like using the Rubber Stamp tool in *Photoshop* except it's much more versatile. In *Painter*, you can turn almost any brush that adds colour to the canvas into a cloner brush, simply by activating the Use Clone Colour icon in the Colours palette.

11 Choose a brush variant that moves paint around, such as the Blenders category>Oily Blender variant, or the Distortion category>Grainy Mover variant. Start moving, smearing and blending imagery. Use brush strokes that follow the form and scale of the features. For instance, when painting grass, use brush strokes that follow the grass stems. With shrubbery and leaves, use dabs. The idea is to create a 'muck up' under-painting on which you can selectively bring back detail, and add colour and contrast as required.



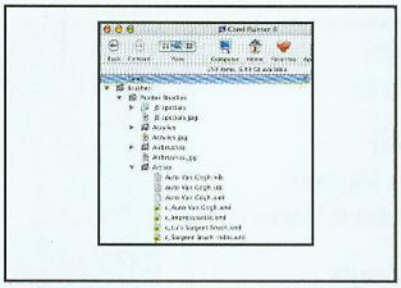
12 The brush hierarchy in *Painter* is Library>Category>Variant. You'll see this hierarchy reflected in the Brush Selector within *Painter*, where you first select the brush category (left-hand pop-up), followed by the individual variant within that category (right-hand pop-up). When you first open the Brush Selector pop-ups, drag the lower-right corners down as far as they'll go so you can see the whole contents of the pop-up at a glance.

Unique Painter extras

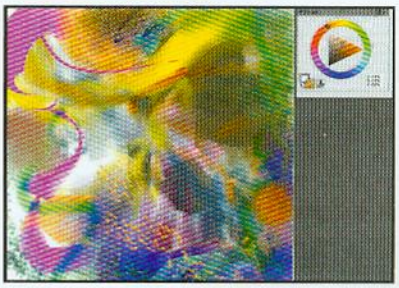
In the example shown here, I'm using the Jeremy Faves category>Artists Palette Knife. This is a blending brush I particularly like from an earlier version of *Painter*. You'll find Jeremy Faves category on the CD that comes with my new book, *Painter 8 Creativity: Digital Artist's Handbook* (see [w] www.paintercreativity.com for details). The CD comes with a collection of unique custom brushes and art materials unavailable in *Painter*.

Using Painter to evoke feeling

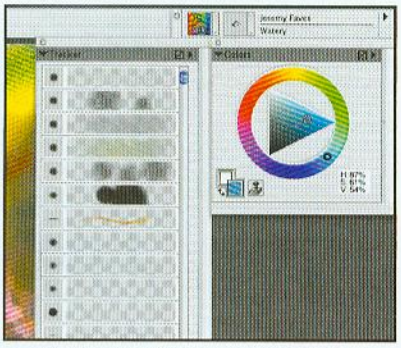
A camera, whether digital or film-based, responds differently to light than the human eye. Our eyes are sensitive to light in a different way to the electronic chip of a digital camera or the chemical reaction of a film. Therein lies the power of working with *Painter* on your photographs. You have at your fingertips the possibility of sculpting and controlling colour, form, composition, contrast and focus to evoke as closely as you wish the exact feeling and sensation you choose to convey.



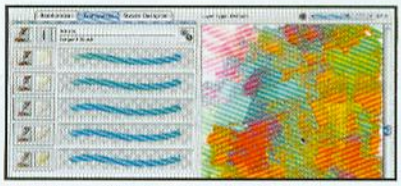
13 It's helpful to look at the *Painter* application folder on your computer hard drive to fully understand the hierarchy of *Painter's* brushes. Look in the Brushes folder contained within the application folder, which contains the default brush library, Painter Brushes. Within this library folder are the brush category folders, each accompanied by a 30 x 30 pixel icon JPEG. Within each brush category folder are the individual brush variant files.



14 *Painter's* array of hundreds of pre-built default brushes can be overwhelming at first glance. Getting to lay your hands on the right brush at the right time to give a certain desired effect can be challenging. Build brush research into your painting process. Use a section of your working image to test out brush strokes (you have up to 32 levels of undo in *Painter*, so you can always undo your research brush strokes).

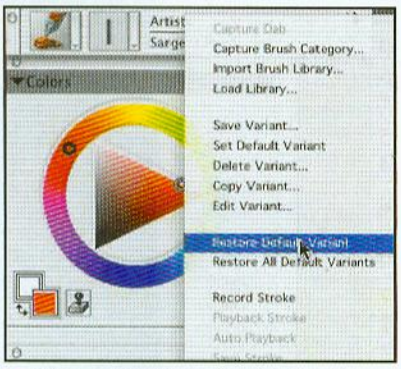


15 The Brush Tracker (available from Window> Show Tracker) offers a handy way to keep track of all the brush variants you've used during a *Painter* session. Just click on any listed variant to select it. Unfortunately, the Tracker list cannot be saved and is lost every time you close *Painter*.



16 Choose Window>Show Brush Creator (Cmd/Ctrl-B). This Brush Creator offers you the ultimate in brush control, diversity and versatility. It has three tabbed sections: the Randomiser, which randomises brush behaviour; the Transposer, which transposes (mixes) one brush behaviour with that of another brush; and the Stroke Designer, where you can control and adjust all the brush behaviour parameter settings. In the case shown here, you see the Transposer mixing the Artists>Sargent Brush with the Sponges>Loaded Wet Sponge to create a fascinating oily spongy brush effect.

17 Whenever you come up with a brush effect you like, store the settings by saving the custom variant. This is done easily by choosing Variant>Save Variant if you have the Brush Creator open. Alternatively, if you're in Normal painting mode (that is, not in Brush Creator mode), you can choose Save Variant from the Brush Selector pop-up menu (click on the small solid black triangle in the upper-right corner of the Brush Selector palette). Rename your custom variant in the Save Variant window. Your newly saved custom variant will appear in the current brush category, although the currently active variant will not have changed.



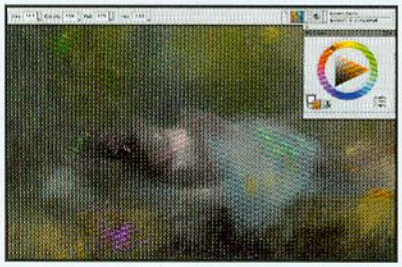
18 You can always restore the original factory settings for your current variant by selecting Restore Default Variant from the Brush Selector pop-up menu.

Part 4: Refining your image

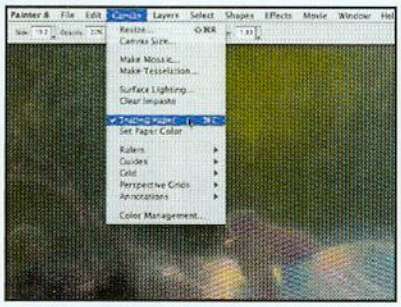
It's time to introduce detailing, texturing and colourising effects...

Play with those sliders

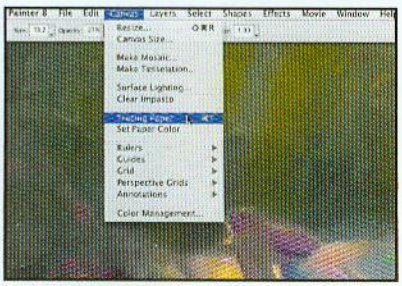
Don't be afraid to experiment with the sliders in the Brush Property bar at the top of your screen. The jitter slider, when it appears, can give great results. If you find a brush setting you love, save the variant.



1 Pick a good dabbing brush such as Oils>Bristle Oils to dab on colour where appropriate. In this example, I used the Jeremy Faves>Jeremy's MishMashPull. You can pull colour from the original image by clicking on the Use Clone Colour icon beneath the colour wheel on the Colours palette. The Use Clone Colour icon looks like the *Photoshop* Rubber Stamp icon. When the Use Clone Colour icon is activated, the colour picker becomes greyed out.



2 Choose Canvas>Tracing Paper (Cmd/Ctrl-T) to activate Tracing Paper. This feature superimposes a 50 per cent opacity image of the original (Clone Source) image with a 50 per cent opacity image of the current working image. The advantage of Tracing Paper is that it gives you a visual reference of the original image showing through, which you can use when painting.



3 Choose Canvas>Tracing Paper (Cmd/Ctrl-T) to deactivate Tracing Paper (the same command toggles Tracing Paper on and off). The disadvantage of Tracing Paper is that it's deceptive – you don't see what your image actually looks like and your brush strokes appear at 50 per cent opacity of what they really are. Use Tracing Paper sparingly, because it only works with Clone Source and active files of exactly the same pixel dimensions.

Refining your image continued...

Less is more

In deciding how much detail to bring back into your painting after losing detail in the 'muck up' under-painting stage, bear in mind the following comments by legendary film-editor Walter Murch:

"You may not always succeed, but attempt to produce the greatest effect in the viewer's mind by the least number of things on screen. Why? Because you want to do only what is necessary to engage the imagination of the audience. Suggestion is always more effective than exposition. Past a certain point, the more effort you put into wealth of detail, the more you encourage the audience to become spectators rather than participants."

Harmonious colour schemes

Here are some examples of colour-wheel schemes that work effectively when painting photographs:

1) Analogous – any three hues that are adjacent to each other on the colour wheel (including their tints and shades).

2) Complementary – direct opposites on the colour wheel.

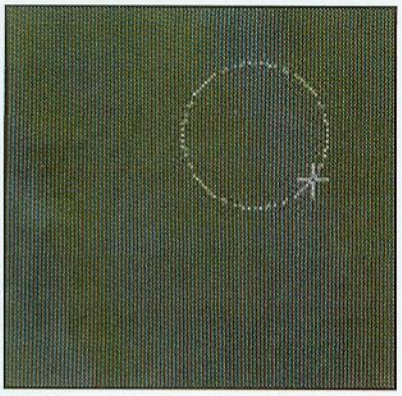
3) Secondary – combining the secondary hues of orange, green and violet.

4) Split Complementary – a hue plus the hues on either side of its complement (orange with blue-green and blue-violet, as shown in this example).

5) Tertiary Triad – consists of three tertiary hues that are equidistant from each other on the colour wheel (red-violet, yellow-orange and blue-green are tertiary triads).

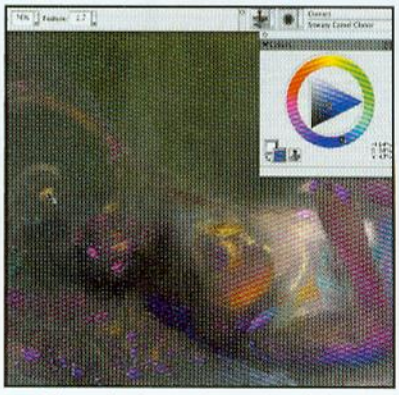
4 Sometimes you might turn on Tracing Paper and think, "Wow! I wish I could have that as my actual final image". There is a way. Click on your original (Clone Source) image. Choose Select>All (Cmd/Ctrl-A) followed by Edit>Copy (Cmd/Ctrl-C). Now click on your working image so it becomes the active image. Choose Edit>Paste in Place (Shift-Cmd/Ctrl-V). In the Layers palette, adjust the layer opacity slider to suit. Click on the eye icon to turn the layer visibility off and on. Click on the canvas in the Layers palette to continue working on your working image in the background canvas.

5 You can access variants through the control pop-up. Hold down the Ctrl key (Mac or PC) and click in your image. This reveals a pop-up menu with access to incremental brush size adjustment, variant settings and the current category variant list. This shortcut is tool sensitive.

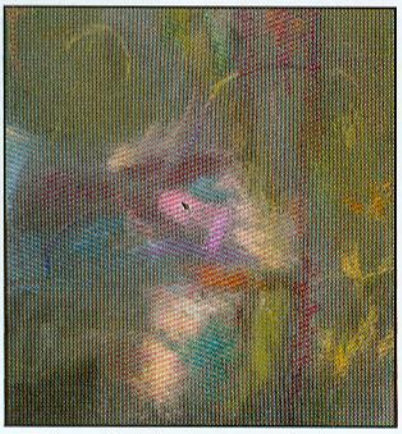


6 If you want to change brush size while painting, you can hold down Shift-Option-Cmd/Shift-Alt-Ctrl. Then click and drag and you'll see a circle, indicating the adjusted brush diameter. This shortcut enables you to rapidly make big changes in brush size. The bracket keys offer a small incremental brush size adjustment.

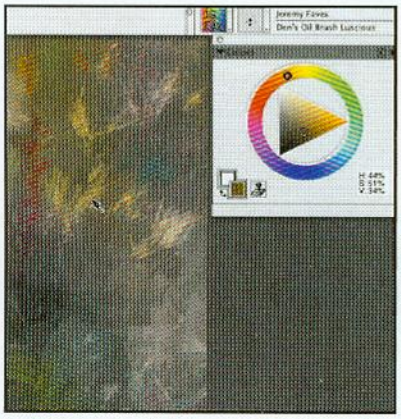
7 Intermittently tap on the Tab key to hide your palettes, hold down the Spacebar while clicking once on your image to centre it, choose Cmd/Ctrl-M to mount your image if it's not yet mounted and use the Cmd/Ctrl-0 (zero) to resize your image to fit the screen. Now step back from your computer, stretch and take a look at your image. Look at the overview. Half-close your eyes to see the tonal values and assess what needs adjusting to improve the image.



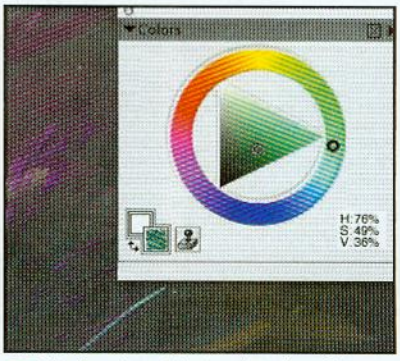
8 Choose the Cloners>Smeary Camel Cloner to work around the metalwork. Click on the Use Clone Colour icon in the Colours palette to turn off Clone Colour and add your own colour from the colour picker.



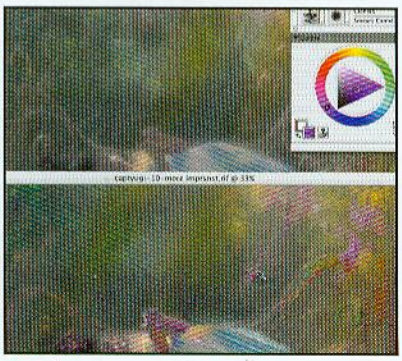
9 Choose the Artists>Impressionist brush to work around the feet. Use warm colours in the shadows to add a sense of warmth to the image.



10 Choose a brush with good oily bristly structure like the Oils>Bristle Oils to add grass texture. In this case, I used the Jeremy Faves>Den's Oil Brush Luscious.



11 Use the colour picker to select colours from opposite, or almost opposite, sides of the hue circle (or colour wheel). One of the great advantages of the colour wheel representation of colour, as used in *Painter's* standard colour picker, is the convenient access to harmonious colour schemes and combinations.



12 The next stage of this project involves selectively adding detail, contrast and colour around the image to draw the eye into the centre of focus and to build up the desired atmosphere and ambience. Choose, for example, Cloners>Smeary Camel Cloner for adding colour and texture to the background grass.

Part 5: Adding 'punch'

Cast a critical eye over your image and adjust detail, contrast and colour…

Defining form through value

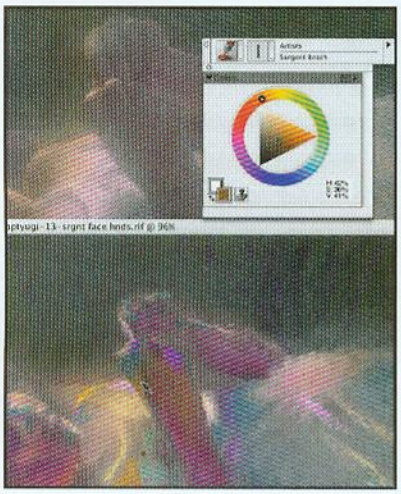
Value or luminance, the perceived lightness and darkness of a colour, informs our perception of three-dimensional form. A painter develops the skill of judging value independent of colour. You can use *Painter's* Effects>Tonal Control>Adjust Colours with the Saturation slider set all the way to the left (-139 per cent) to simulate a luminance-only (greyscale) version of your artwork. Choose Edit>Undo (Cmd/Ctrl-Z) to get back to full colour. You can also use the Dropper tool to compare the luminance of different regions of your canvas (just observe the value setting in the colour picker or the location of the central circular cursor in the Saturation Value triangle of the colour picker).

Matching the original image

You may find it useful to unmount your working file (Cmd/Ctrl-M) and place it over your original image so you can see the details and colours in the original image as you paint. You can also use the Dropper tool to pick colours from different parts of either image.

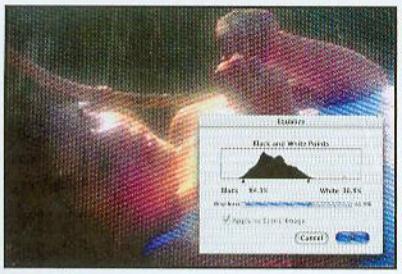
Print options

An oil painting like the one created here will look wonderful as a stretched and framed canvas print. You can add varnishes to enhance three dimensional brush stroke appearance. We don't cover colour management issues in this article, but that's an important area for any digital artist to get to grips with. Without good colour management, you'll find your images may look significantly different when viewed in *Painter*, *Photoshop* and in the final printed form. It's always best to run test prints to avoid unpleasant surprises.

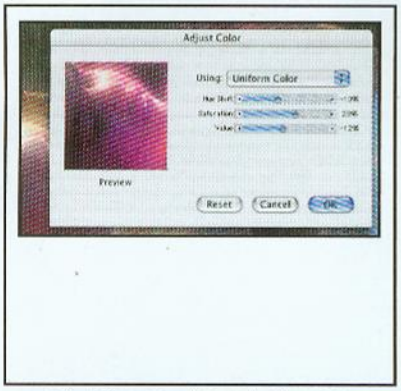


1 Choose Artists>Sargent to add light oil brush strokes to the face and hands.

2 Choose blending brushes like the Blenders>Oily blender to blend in the colours. You can also use Clone Colour to blend in dabs of colour. Experiment with the effect of juxtaposing complementary colours from opposite sides of the colour wheel.

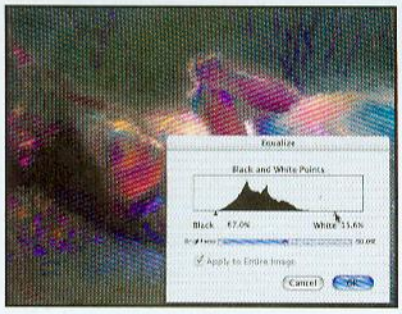


3 When you've completely covered your canvas with brush strokes and gone back over the image to add selective detail and colour, you may find that the image is lacking a certain 'punch'. Here, I recognised that I needed to generate more contrast and more saturated colours, so I determined to alter my Clone Source accordingly. First, select your original image from the bottom of the Window menu and choose Effects>Tonal Control>Equalise (Cmd/Ctrl-E). This generates a histogram of the distribution of luminance in your image. Adjust the Black and White Points and the Brightness slider until you're satisfied with the preview image. Click OK.



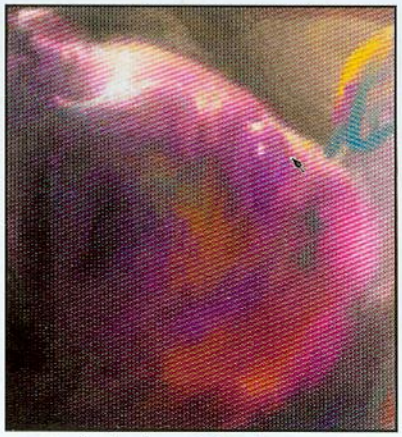
4 Select Effects>Tonal Control>Adjust Colour. Leave the Using pop-up menu on Uniform Colour. Adjust the Hue and Saturation sliders to generate an interesting colour scheme in the image preview. Click OK.

5 Make sure you use the File>Save As command to resave and rename the original, so you have it saved as a distinct version.



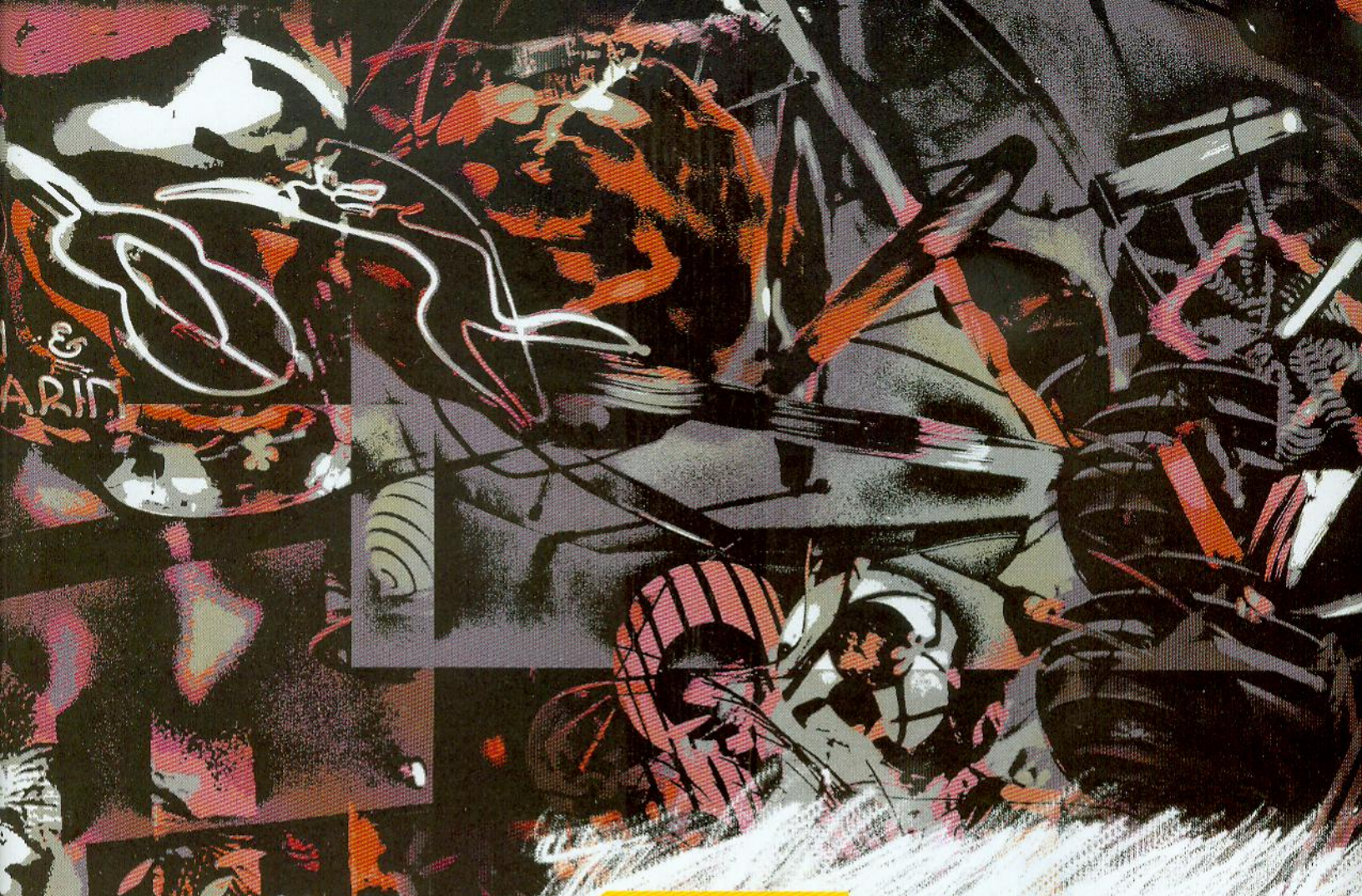
6 Choose your working image from the bottom of the Window menu. Choose Effects>Tonal Control>Equalise (Cmd/Ctrl-E). This will automatically generate a histogram of the distribution of luminance in your working image and adjust the Black and White Points to increase contrast in your image. Adjust the Black and White Points and the Brightness slider until you're satisfied with the preview image. Click OK.

7 Choose the Cloners>Soft Cloner. Lower the opacity slider in the brush property bar to about 20 per cent. Gently brush in some of the newly adjusted original image.



8 Use the Blenders>Oily blender, or a similar brush, to blend away any photographic grain that's appeared as a result of using the Soft Cloner.

9 Add final detail touches such as foreground grass (in this case, I used Jeremy Faves>Den's Oil Brush Luscious). Also take a look at where final highlight touches are needed. Don't forget to add your digital signature. I added mine with a small Jeremy Faves>Big Wet Luscious. ca>p



SECTION **FOUR**

Turn a photo-collage into a woodcut print

Use *Painter* to reproduce an ancient printing art form: the traditional woodcut...

The original plan for this picture was to create a collage portrait of Jan Sung, the owner of Eliza's Restaurant in San Francisco, a great place for delicious Hunan and Mandarin cuisine. Using a digital camera, a series of photographs of the owner and of scenes from the interior and exterior of the restaurant were captured. Our expert, Jeremy Sutton, was drawn to the restaurant's mix of ancient Chinese artifacts with its modern, bright, dramatic, Matisse-like back-lit wall panels and unusual fluorescent ceiling sculptures.

The woodcut stage of this portrait was initially intended as an intermediate variation from which to clone some varied textures and colours. Jeremy was surprised that the stark, harsh, flat, graphic woodcut, with its limited range of colours and its heavy black line-work, was so much more powerful and beautiful than the garish, complex, intricate, multi-coloured, multi-layered photo-collage he eventually created. He explains: "I kept returning to the beauty of the woodcut stage until the light bulb finally went off in my head: that the woodcut was it!"

Follow Jeremy's steps to this realisation over the next six pages...

Expertise provided by Jeremy Sutton. Jeremy is an internationally renowned portrait artist, author and educator based in San Francisco. He has written a number of books, two of which are reviewed on pages 92–93. You can see more examples of his artwork at [w] jeremysutton.com.

Part 1: Creating a collage

Assemble a photo-collage and build up layers in *Painter*...

Use Screen Mode

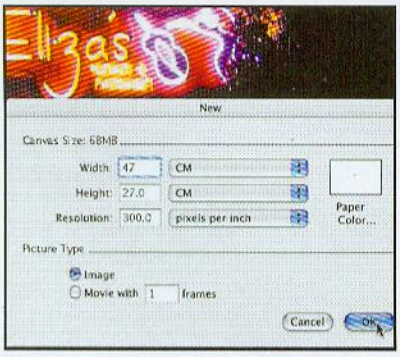
Choose Cmd/Ctrl-M (Window>Screen Mode Toggle) to mount your canvas in *Painter*. This simplifies and unclutters your desktop, giving an inert grey background around the canvas. We recommend working in screen mode whenever possible.

Zoom out

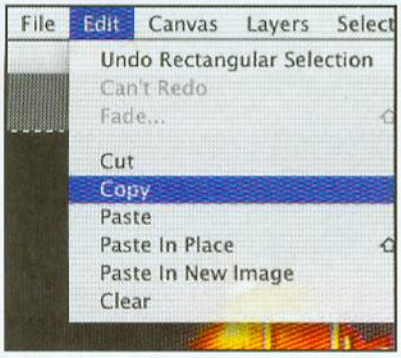
If the control handles lie outside your canvas area, you might need to zoom out (Window>Zoom Out, Cmd/Ctrl-"-") to see the control handles on your screen. When they lie outside the canvas area, they can be difficult to spot since they are light grey against a dark grey window background colour.

1 Your first step in creating a photo-collage is to consider all the source images you've gathered and decide on a suitable foundation image to serve as a background on which to build. I selected an exterior night shot of the restaurant as my foundation.

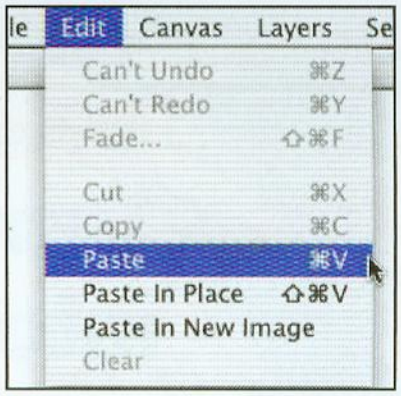
2 You should have only your foundation image open in *Painter*, so close any other images.



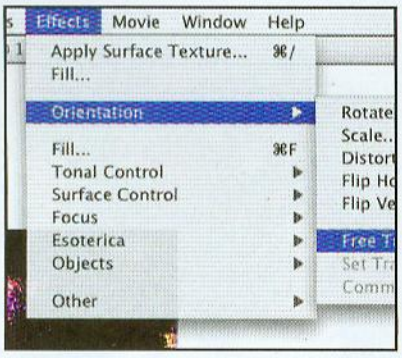
3 Create a new canvas by selecting File>New (Cmd/Ctrl-N). Change the new file dimension units from pixels to cm (or inches). Specify your desired final print size and resolution. My file size, determined by the requirements for this article, was 47cm wide x 27cm high at a resolution of 300 pixels per inch.



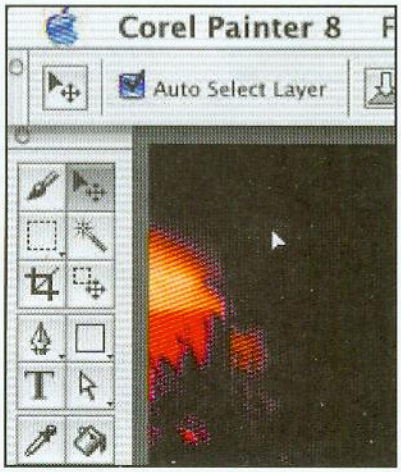
4 Copy your foundation image by clicking on it so that it's the active image in *Painter*. Choose Select>All (Cmd/Ctrl-A) followed by Edit>Copy (Cmd/Ctrl-C) followed by File>Close (Cmd/Ctrl-W). Close the original image without saving changes.



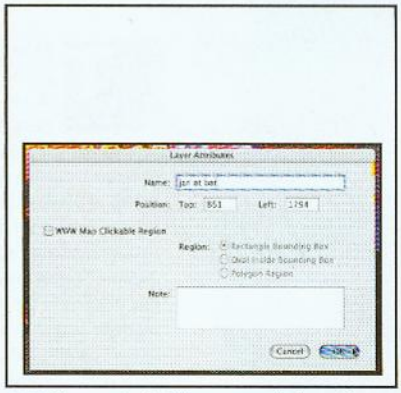
5 Paste the foundation image into a new canvas by clicking on your new blank canvas so it becomes the active image. Choose Edit>Paste (Cmd/Ctrl-V).



6 Choose Effects>Orientation>Free Transform. This converts your layer from a regular image layer to a reference layer. Hold down the Shift key and drag in the corner handles to resize the layer without distortion – that is, while keeping the aspect ratio (width to height) constant.



7 To reposition the foundation image layer, click and drag with the Layer Adjuster tool.



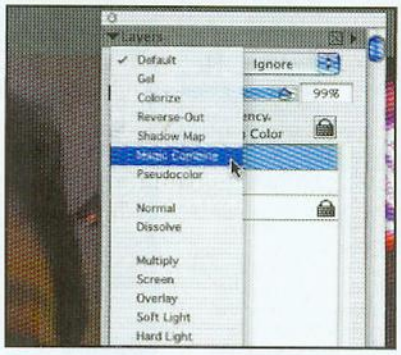
8 When you're building up a multi-layered image in *Painter*, always rename the layers from the default Layer 1, Layer 2, and so on. To rename a layer, just double-click on the layer in the layers list and then type the descriptive name in the Layer Attributes window that appears.

9 Follow this same procedure for your head shot of the portrait subject. The head shot should be pasted as a new layer, which will be above the foundation image layer. Rename the new layer immediately.

What is Magic Combine?

As the *Painter 8* User Manual explains, "In the Magic Combine method, the layer is combined with the underlying image based on luminance. The parts of the layer which are lighter than the underlying image are visible. The darker parts are replaced by the lighter areas of the underlying image. One way to use this method is to fill text with a photograph. With a photograph as the top layer and black text as the underlying image, choosing Magic Combine fills the text with the image."

10 If you wish to rotate a layer, such as adjust the head angle, convert the layer to a Free Transform (Effects>Orientation>Free Transform), hold down the Cmd/Ctrl key and click and drag on a corner control handle to rotate the layer.



11 With your renamed Layer 2 highlighted in the Layers palette, click on the upper left pop-up menu and change the layer Composite Method (equivalent to the layer blending mode in *Photoshop*) from Default to Magic Combine.

12 Continue adding imagery to the collage in a similar way to the last step, resizing with Free Transforms and experimenting with the Composite Methods to get the most pleasing result. Also experiment with the layer opacity slider located just above the layers list in the Layers palette.

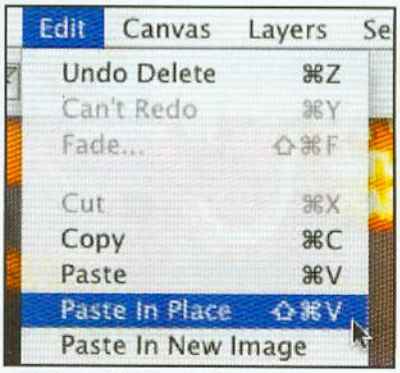
Part 2: Restoring the head

Here, we show you how to bring back a portion of a layer which became obscured when we changed Composite Method from Default to Magic Combine...

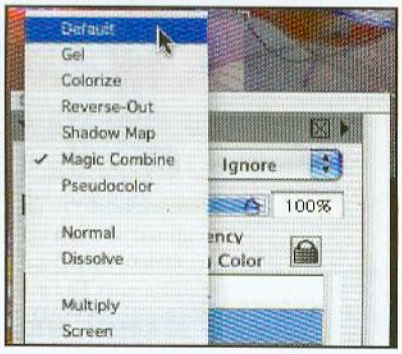
Close files after use

In assembling a collage, you should always close source image files once you've finished with them. Attempt to keep your *Painter* workspace as uncluttered as possible and minimise the number of files you have open in *Painter* at any one time. This will enable both you and *Painter* to work more efficiently.

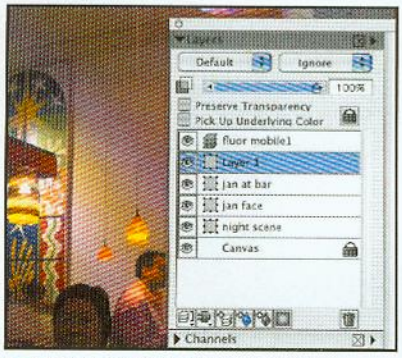
1 Select the layer in the Layers palette to be duplicated. Choose Edit>Copy (Cmd/Ctrl-C).



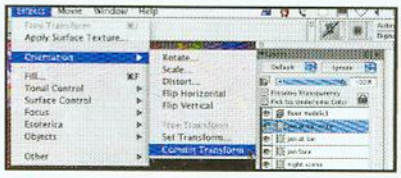
2 Choose Edit>Paste in Place (Shift-Cmd-V/Shift-Ctrl-V). This command pastes the duplicate layer exactly over the original layer.



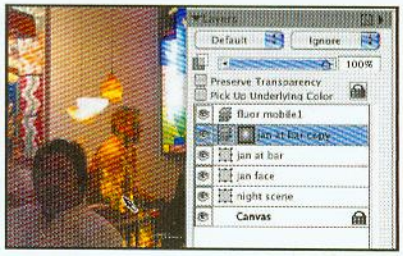
3 The new pasted duplicate layer, which has the same name as the original layer but with 'copy' added at the end, has the same Composite method as the original layer, in this case Magic Combine.



4 Change the Composite Method of the duplicated layer from Magic Combine to Default. The duplicate layer now completely obscures the original underlying layer.



5 Choose Effects>Orientation>Commit Transform. When you duplicate a layer in this way, you not only duplicate the original Composite Method but also the type of layer, whether a regular image layer or a reference layer. In this case, the original layer was a reference layer (Free Transform). You can tell that by the symbol next to the layer name in the Layers palette. The reference layer symbol is a grey square with control handles, whereas the regular image layer symbol is three layers stacked up on one another. The next step involves painting in the layer mask, which can only be done on a regular image layer, not a reference layer.



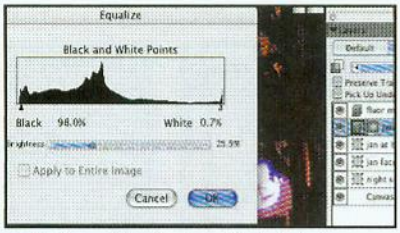
6 With the duplicate layer (now a regular image layer) highlighted in the Layers palette, click on the Create Layer Mask icon, the right-hand of the six icons at the bottom of the Layers palette which resembles a diffuse sun against a grey sky. This generates a Layer Mask, which is represented by the same symbol as the Create Layer Mask icon. This symbol appears in the layers list between the image layer symbol and the layer name.

Part 3: Editing layer visibility

You can change the visibility of a layer by painting on the Layer Mask...

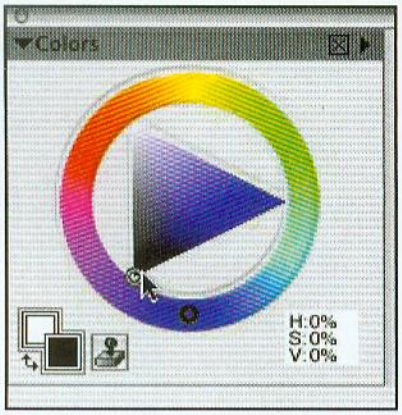
Use the Colour Swap icon

The easiest way to work with painting into the Layer Mask is to set up black and white in the Primary and Secondary Colour squares of the Colours palette. To avoid confusion with the traditional art terms, I refer to these squares as the Regular and Additional Colours. It's best to always have the Regular Colour square highlighted (the front-most square). Use the Colour Swap icon (two-headed curved arrow) to swap the Regular and Additional Colours. In this way, you can first pick white in the Regular Colour square, then transfer it to the Additional Colour square. You can then pick black in the Regular Colour square and start painting in the Layer Mask. When you need to paint with white, you just click on the Colour Swap icon and vice versa.

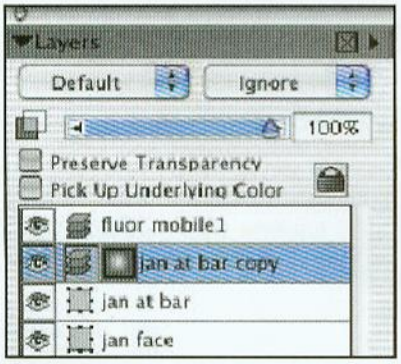


1 Before editing the Layer Mask, look at your layer luminance and decide if you need to enhance the contrast or lighten or darken the layer. Here, I needed to lighten the layer. To do this, make sure the image layer symbol is highlighted in the duplicate layer in the Layers palette (click on the symbol if needed). If the Layer Mask symbol is highlighted then you won't be able to access the Effects>Tonal Control menu. Choose Effects>Tonal Control>Equalise (Cmd/Ctrl-E). Adjust the brightness according to taste.

2 In the Brush Selector, choose the Airbrush>Digital Airbrush.



3 In the Colours palette, make sure that black is selected.



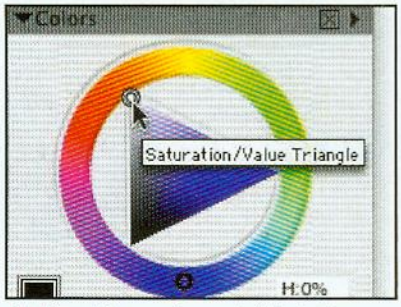
4 In the Layers palette, click on the Layer Mask symbol in the duplicate layer and make sure it's highlighted (otherwise you'll paint black right onto the layer image).

5 Gently stroke the airbrush into the layer in your image, starting at the edges. Watch the layer visibility evaporate as you paint.

6 In the brush property bar adjust the airbrush size and opacity to get the level of control you're looking for.

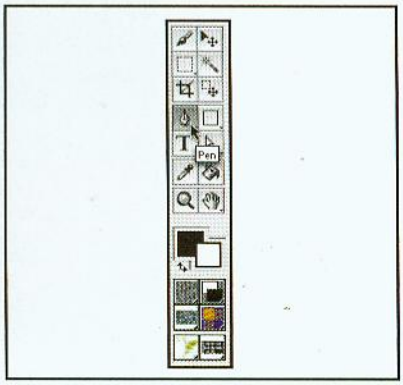
Part 4: Finishing the head and making selections

Find out about two convenient ways in which you can select specific regions of your source images to integrate into your collage project...



1 If you take away too much of the head, or whatever item you're trying to preserve, then change the colour from black to white and paint back the layer visibility where appropriate. Just as in *Photoshop*, when painting into the Layer Mask in *Painter*, black subtracts and white adds.

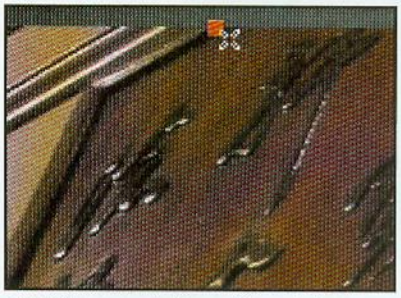
2 Now on to making and controlling selections for use in your collage. Choose an image element you wish to select which has clearly defined linear (or smoothly curved) outer contours.



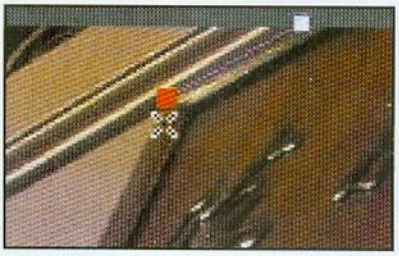
3 Choose the Pen Tool in the Tools palette (keyboard shortcut 'p').

Drawing pads

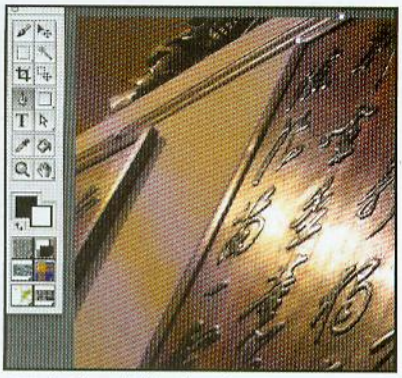
Drawing pads like the Wacom products are vitally important when pursuing a career as a digital illustrator, especially with the new dynamic Brushes palette in *Photoshop*. These pressure-sensitive drawing pads are the next best thing to using pen on paper. Over time, you should find yourself with one hand using the pen and pad and the other hand on the keyboard for using *Photoshop* shortcuts. You'll also find that you don't even need to look at the keyboard. You'll find a round-up of the latest Wacom tablets on pages 88–89.



4 Click on your starting position and raise your stylus from the tablet surface. A small solid red square control point appears. Avoid dragging unless you wish to have a curved contour. The Pen tool is a Bezier drawing tool which creates curves when you drag on the control points.

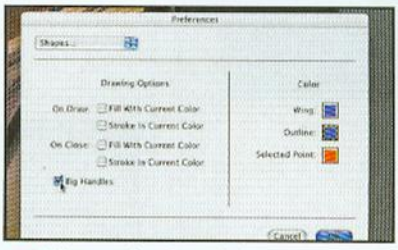


5 Make another clean click at the next intersection point of the contour, releasing the stylus from the tablet immediately after the click. The original control point is now a tiny white square and the most recent control point is a small solid red square. You'll see a thin blue line joining the two path control points. This blue line represents a vector, or mathematical, path.

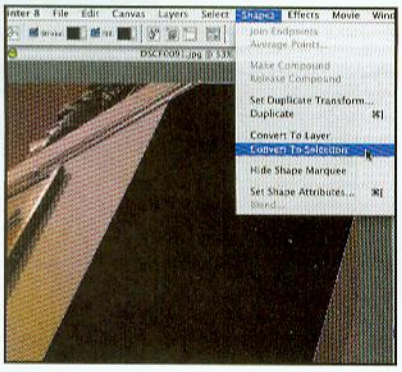


6 Continue clicking along the contour at appropriate places.

7 The final click will be when the path becomes closed and you click on your starting control point. Although difficult to see, the cursor changes from a large 'x' to a small 'x' with a small 'o' attached when you're about to close the path. When closed, the path becomes a shape, represented in the Layers list by a symbol showing a light triangle over a shaded circle.



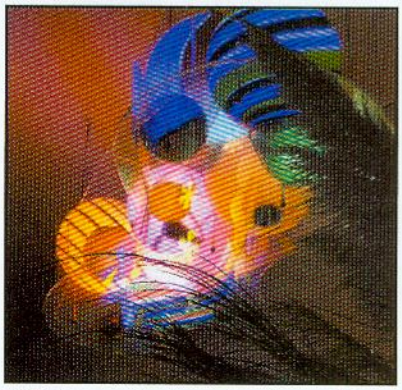
8 When you close the path, the region enclosed within it may become filled with the current colour. Don't worry, because this is just the default setting for what happens when you close a path. To change this setting, choose Corel Painter 8/ Edit>Preferences>Shapes. In the Shapes Preferences window, uncheck the On Draw and On Close Drawing Options. I recommend checking the Big Handles option, too, to make manipulating paths easier.



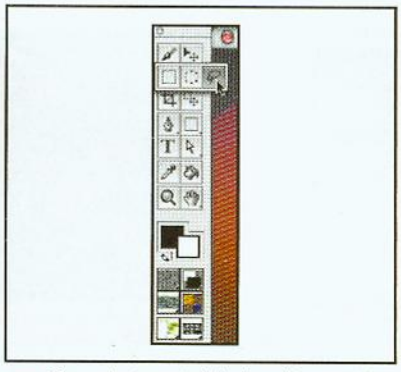
9 Choose Shapes>Convert to Selection. This converts the solid shape into a regular selection. You can now copy and paste the selection into your working image, using the steps outlined earlier.

Part 5: Making a Lasso selection

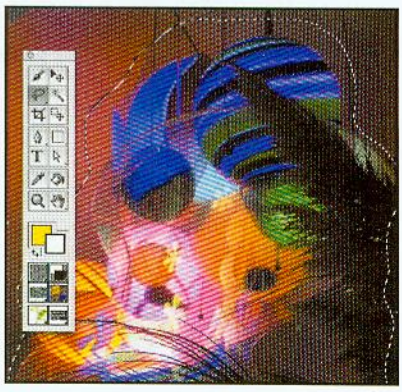
For selecting complex elements, use the Lasso tool...



1 Choose another image element you wish to introduce into your composition, this time one with curved, complex or ill-defined boundaries. Open the image element source photo in *Painter*.

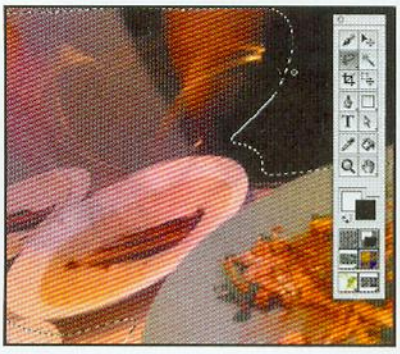


2 Choose the Lasso tool (keyboard shortcut 'l'). Note that the Lasso tool is one of three selection tool options that pop up from the Tools palette, the other two being Rectangular and Oval selection tools.

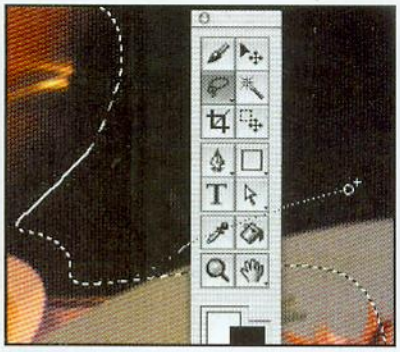


3 Keeping your stylus on the tablet, drag the Lasso around your image element in a single selection. This example shows one of the fluorescent ceiling sculptures.

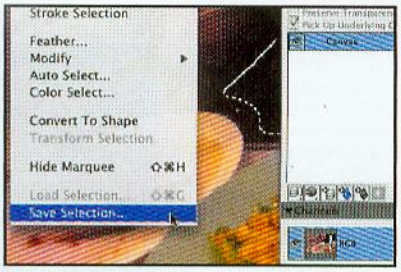
Making a Lasso selection continued...



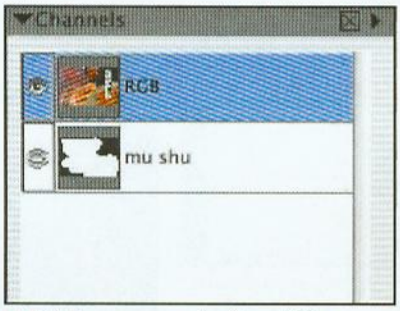
4 End your Lasso selection close to or on top of your starting point. The Lasso selection is automatically closed with a straight boundary when you raise the stylus from the tablet.



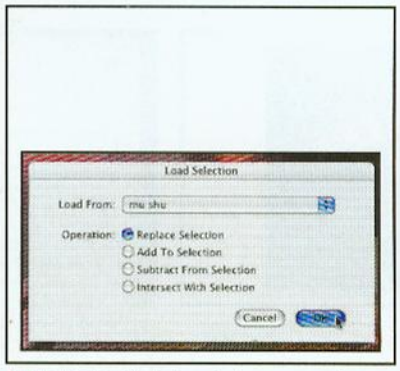
5 If you make a mistake in the Lasso selection and want to edit it, hold down the Shift key to add to the selection and hold down the Option/Alt key to subtract from the selection.



6 If you've put a lot of work into making a selection and you think you might want to reuse it, save it. Either choose Select>Save Selection or click on the Save Selection as Channel icon, second from the left at the bottom of the Channels palette. In the Save Selection window, give the selection a name. Leave Save to: New. Click OK. It'll be saved as a channel in the Channels palette.



7 Make sure you save the file as a RIFF or *Photoshop* format file in order to preserve the channel information. You can then reload the selection at any time in the future by choosing Select>Load Selection (Shift-Cmd-G/Shift-Ctrl-G) or by clicking on the Load Channel as Selection icon in the Channels palette (left-hand icon at the bottom of the Channels palette).



8 In the Load Selection window, you can then choose to load from any saved Channels and decide whether the selection replaces, adds or subtracts from any selections already active in your image.

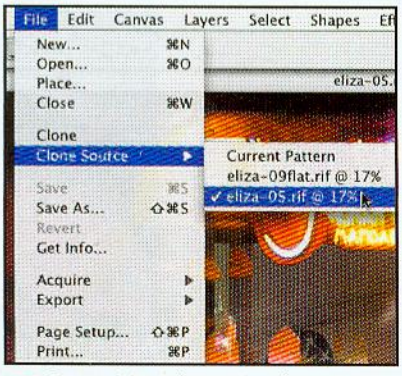
9 To feather the edge of the selection you've made with the Lasso tool, or any other selection, choose Select>Feather. The default feather is 3 pixels. Increase the feather to 10 or 20 pixels or whatever is appropriate for your scale of image.

Part 6: Flattening, cloning and blending

An alternative to flattening your image is to make a clone copy. With a flattened image, you can start blending and smearing areas using blenders and similar brushes...

1 When you're working in *Painter 8* with an image that contains many layers, you may find that you can't view all your layers at once. The solution is to place the cursor over the row of pixels along the bottom of the layers list (just above the row of six Layers palette icons). You can then expand the Layers palette by dragging down your cursor.

2 When building up an image with many layers, it can be useful to protect layers from being accidentally moved or altered once you've worked on them. To protect layers, just click on the right end of the layer in the Layers palette. You'll see a lock symbol appear, which indicates that the layer is now locked. To unlock the layer, just click on the lock symbol and it will disappear.



3 Open an intermediate version of your image where there are sections that you'd like to integrate into the current working image. Choose File>Clone Source and manually reset the Clone Source to be the intermediate version.

Multiple Clone Sources

Going between multiple Clone Sources is a flexible way to work. Anytime you overdo the cloning and can't simply undo, you can just change the Clone Source back to the version you want to return to. For this reason, I recommend making clone copies before you clone in. Maximise your flexibility.

Signature

A nice touch is to add a digital signature at the completion of your artwork. You can do a freehand written signature using a suitable brush in a new layer (with Preserve Transparency turned off). Alternatively, you could use the Text tool, choose your font and font size, and create a text layer. Painter's Text tool enables you to preview fonts. For this project, I chose to use the Text tool and create a vertical signature which matched the Chinese restaurant theme.

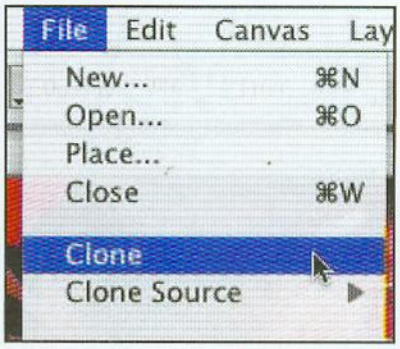
Final word

These tutorials are not intended to be set recipes to follow, merely helpful guidelines. I hope that my sharing of techniques, insights and observations is useful to you in finding your own path with *Painter*. I wish you much success in your own explorations.

Feel free to email small JPGs of your creations to me at

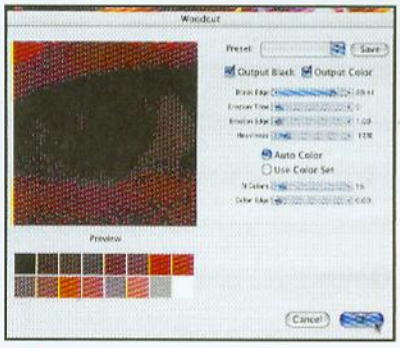
[e] jeremy@paintercreativity.com.

4 Choose the Cloners>Soft Cloner and gently mix the region of the earlier version into the current working image.



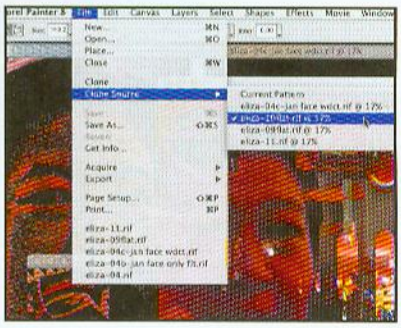
5 When preparing to apply a woodcut effect to a completed composition, it's important to ensure the image is flat, otherwise the effect will only be applied to the selected layer or just to the background canvas. As you have seen, there are two ways to prepare a flat image: either drop all layers or make a clone copy. In this case, select File>Clone.

6 With the flat cloned image active, choose Effects>Surface Control>Woodcut.

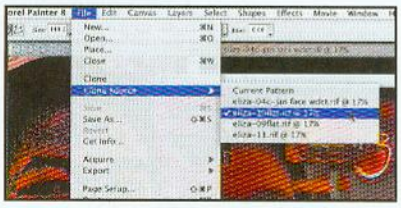


7 In the Woodcut window, leave Output Black and Output Colour both checked. This will result in strong black lines and forms mixed in with posterised colours. Drag your cursor in the preview window so that you see a critical part of the image displayed. Adjust the sliders while looking at their effect in the preview window. When you're satisfied with the result, click OK.

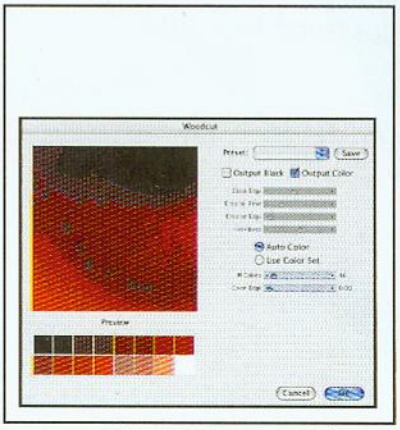
8 I loved the way the Woodcut looked, especially the effect of the strong black linework mixed in with a limited palette of colours. What I didn't like was the black in the large face on the left of the image, and also the various objects obscuring the woman's face. The black marks in the face just looked wrong to me. I decided then to make an alternative woodcut without the black, and then selectively clone that into the face region.



9 Using the Save As command, save the black and colour woodcut version with a clear descriptive name. Then set that file to be Clone Source (File>Clone Source). With the last pre-woodcut version of the collage image open and active, use the Cloners>Soft Cloner to mix in the woodcut. You can also go back to earlier versions of your image, transform those to woodcut and use those as Clone Sources.



10 Look at areas of your image where there are distractions to the eye, either through too high contrast in the wrong places, too straight edges, too much or too little colour, and so on. Make a clone copy of your current image. Work into the clone copy with brushes like Artists>Sargent, Acrylic>Captured Bristle and Jeremy Faves>Big Wet Luscious. I used these brushes both in the background regions and in the skin and face areas. I decided at this point to make the woodcut the final version, even though that hadn't been my original intention. To facilitate the inclusion of my brushwork in the final version, I then made a woodcut version of this brushed image with both black and colour.



11 Make a clone copy of the version where the main face was unobstructed and apply the woodcut effect, this time with colour only (uncheck the Output Black option in the Woodcut window).

12 Set the colour-only woodcut as the Clone Source and use the Soft Cloner to clone into the face region, making the black artifacts disappear. Finally, clean up other areas of the image. ca-p

Illustration: Domanic Li [w] www.organisart.co.uk

SECTION **FIVE**

Brush up on your tool skills

Learn everything you need to know about using and editing brushes in *Illustrator*...

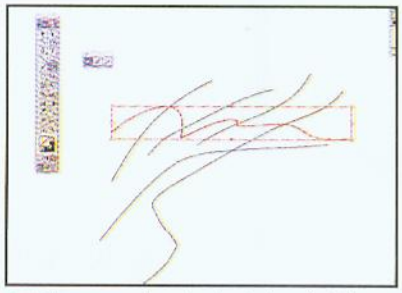
The contents of *Illustrator's* Brushes palette and the program's brush-modifying options are great for creating natural media effects quickly and easily. We show you how to get the best natural effects out of the calligraphy, scatter and art brushes before explaining how best to manage your brushes and set up brush libraries. When you've mastered these brush skills, you can follow our nine-step tutorial to creating a version of this multi-layered hands illustration.

Expertise provided by Domanic Li. Domanic has been a freelance designer for five years and he also lectures in graphic design and illustration at Hull College of Art and Design. You can contact Domanic via The Organisation at **[w]** www.organisart.co.uk, or by calling **[t]** 020 7833 8269.

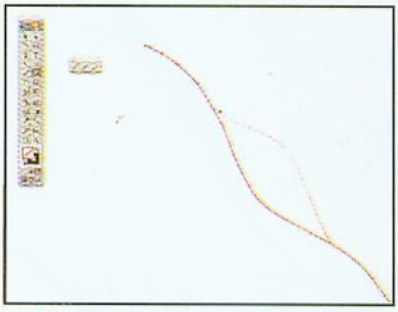
Files on disc
All the files needed for this tutorial are on the cover CD. Go to: Software \ Tutorials \ Illustrator/Photoshop tutorials \ Dual \ Illustrator tutorial \ Section 5.

Part 1: Using the Pencil and Smooth tools

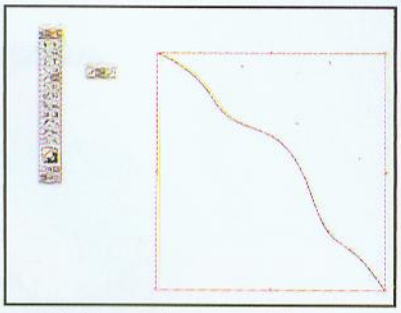
First, we show you how to sketch with the Pencil tool, smooth out your lines and alter the tools' preferences...



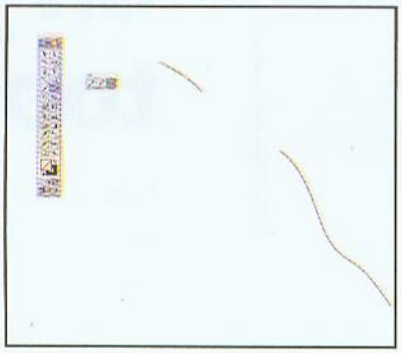
1 There are various drawing tools available in *Illustrator* which can be used to help in the creation of natural media drawings. The Pencil tool enables you to draw freeform paths on screen in a much looser and more expressive way than with the Pen tool, and it's great for creating quick, sketch-like images.



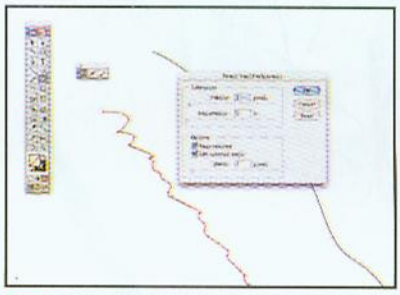
2 The Pencil tool also has a few nifty features up its sleeve. For example, if you draw a line while it's still selected, you can redraw over part of the line to immediately edit it. Make sure that you start on part of the line or you might draw a new path, depending on the Pencil tool options.



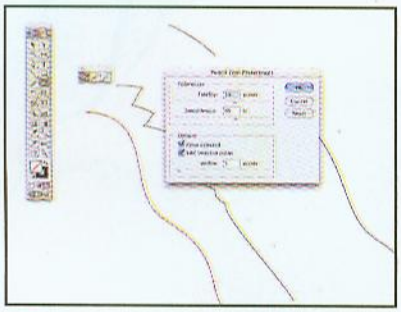
3 If the lines you draw are too rough, you can smooth them out with the Smooth tool, found in the Pencil toolset. Alternatively, if you still have the Pencil tool active, hold down Option to change from the Pencil tool to the Smooth tool. Draw over a part of a selected path to smooth it out.



4 You can also remove parts of selected paths by using the Eraser tool in the Pencil toolset. Like the Smooth tool, just draw over the part of the path you want to remove. You can also use the Eraser tool to remove parts of brushed paths.



5 You can change the Pencil or Smooth tool preferences by double-clicking on the relevant icon in the toolset. The Fidelity value controls how closely the path will reflect the actual line you draw. Lower settings produce more points along the path and will follow your drawing more closely, while higher settings will produce smoother lines with fewer points.



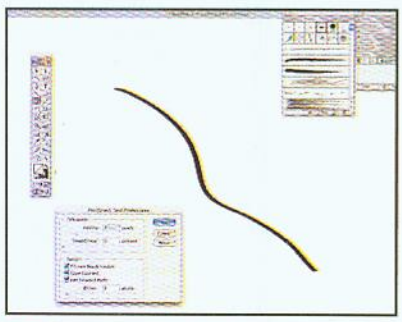
6 The Smoothness setting controls the smoothness of the path as it's drawn. Lower settings produce rougher paths; higher settings result in smoother paths. There are also options to keep the path selected once it's drawn, and you can change how close you need to be near a path to be able to edit it.

Part 2: Working with brushes

Choose from *Illustrator's* preset brushes or find out how to create your own...

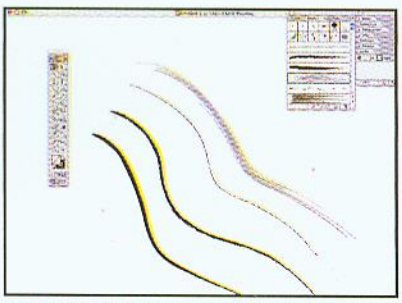
Brush libraries

Illustrator has a number of tools and features which can help in the creation of natural media effects. Possibly the most useful is the ability to create and edit a variety of brushes, which can be saved and stored in custom brush libraries for future use.

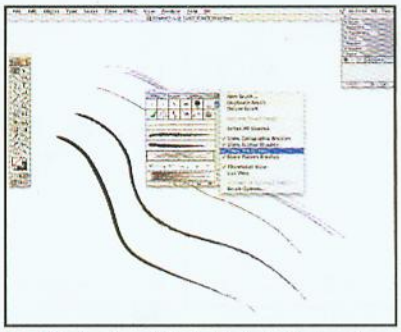


1 The Paintbrush tool works in a similar way to the Pencil tool, except that it enables you to create paths which are painted with a brush selected from the Brushes palette. The options are almost identical to those of the Pencil tool, with the added feature of being able to fill new brush strokes.

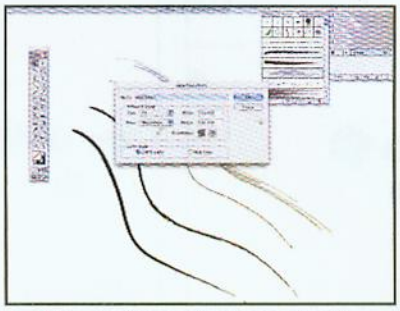
2 Choose Window>Brushes to bring up the Brushes palette. There are three brush types which are useful for creating natural media effects: calligraphy brushes recreate calligraphic type strokes; scatter brushes place copies of artwork along the path and can be used to create splashes and paint-like marks; art brushes stretch artwork along the length of the path and are great for creating a whole range of marks.



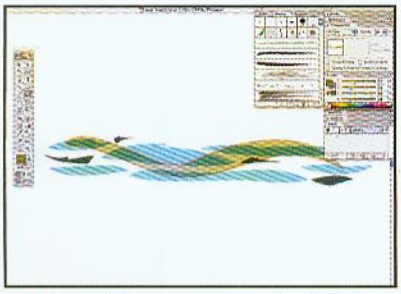
3 The brushes that come with *Illustrator* are a good place to start. Try creating some artwork with simple lines and apply different brushes to see how they can change the look of your artwork rapidly. Select the paths to which you want to apply brushes and then click on a brush in the Brushes palette.



4 The Brushes palette in *Illustrator* features four brush types: calligraphic, scatter, art and pattern. These can be used to apply art to selected paths in your work. You can use or modify the preset brushes or you can easily create your own.



5 When creating new brushes, you should always start in a new file, because the brush data becomes associated with the current file. You can make multiple brushes in one file to compile libraries of brushes – for example, you could create a library file with various ink-like brushes.



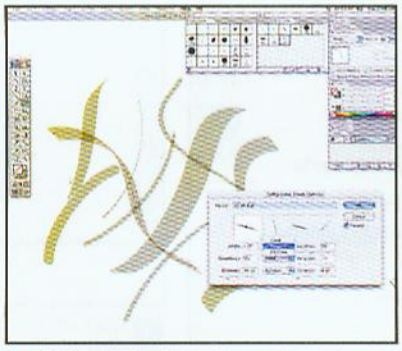
6 It's possible to create your own brushes for each type of available brush, but you can only create brushes which are made up of plain-filled or stroked shapes (although transparency settings can be applied too). If you try to create brushes from artwork including elements which can't be turned into brushes, an error dialog will appear.

Part 3: Calligraphy brushes

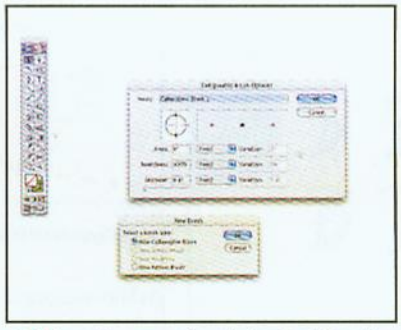
Learn how to adjust, create and delete calligraphy brushes...

Building up effects

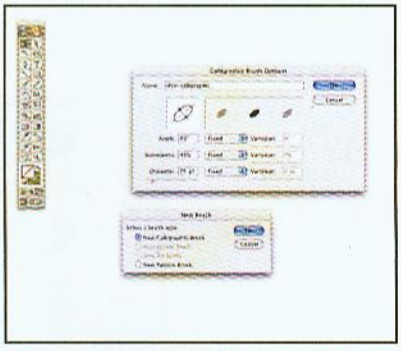
Experiment with creating your own brushes and modifying existing ones. Think how you can use blending modes to add build-up effects to your brushes, or how different colour modes of brushes can enable you to alter colours of specific brushes in your artwork. You might be surprised at what you come up with!



1 Calligraphy brushes can be used to create spontaneous painterly and calligraphic marks. If you have a graphics tablet then you can create highly variable and responsive marks by altering the pressure settings for the various options in the Calligraphic Brush Options dialog.

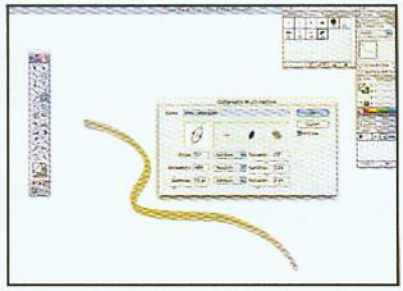


2 To create a new calligraphy brush, click on the New Brush option in the Brushes palette. In the New Brush dialog, select New Calligraphic Brush. The Calligraphic Brush Options dialog enables you to name your brush and customise it in a variety of ways. The preview windows show the state of the current brush.

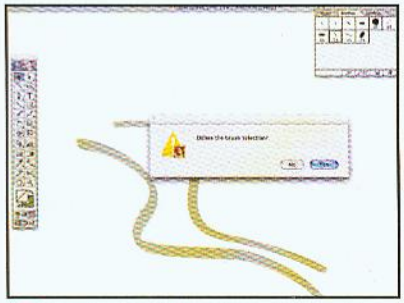


3 The left-hand wheel-like preview enables you to change the angle of the brush by dragging the arrowhead, and the dots on the black ellipse enable you to vary the roundness of the stroke. The right-hand preview shows the effects of the angle, roundness and diameter settings.

4 By changing the fixed settings to Random (or Pressure if you have a graphics tablet), you can add variety to brush strokes. When choosing Random, you can use the Variation slider to alter how the brush will look. The grey ellipses in the right-hand preview show the minimum and maximum variations.



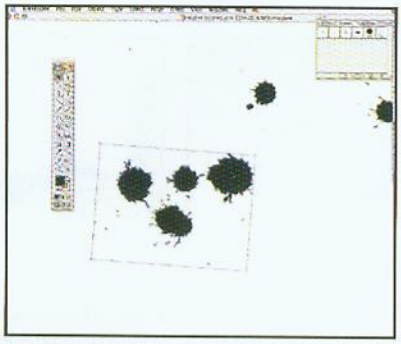
5 Click OK to accept your settings, then click on your new brush in the Brushes palette to apply it to selected paths. You can customise existing and newly created calligraphic brushes by double-clicking on them in the Brushes palette. This will open the options again with a Preview check button, so that you can see how your variations affect your artwork.



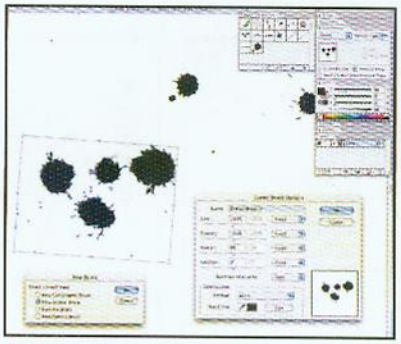
6 Experiment with the various settings and try creating your own calligraphy brushes. If you want to remove a brush from the Brushes palette, select it and click on the trash icon at the lower-right of the palette, or choose Delete Brush from the Brushes palette options.

Part 4: Scatter brushes

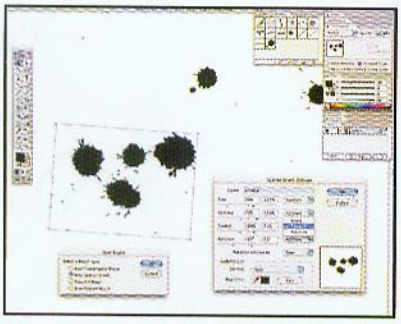
Experiment with paint drips and brush marks...



1 Scatter brushes can be created from artwork to make strokes that resemble paint-like drips and dabs or brush-like marks. You can change various options, such as size, spacing and rotation, to quickly alter the look of any given scatter brush. You also have access to colouring options.



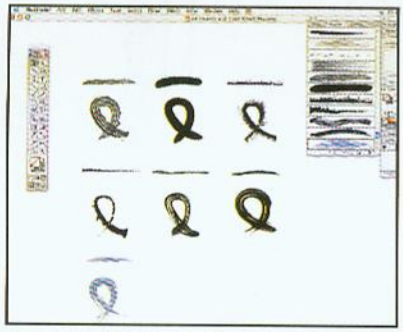
2 Select the artwork you want to use in your scatter brush and choose New Brush from the Brushes palette options. Choose New Scatter Brush to open the Scatter Brush Options dialog. You can rename the brush if you want to, and you get a preview of the artwork used in the scatter brush.



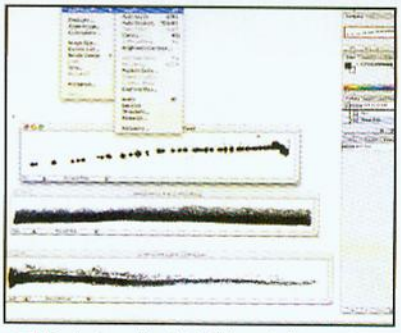
3 As with the calligraphy brushes, there are numerous options to change the look of your scatter brush. If you change the fixed amounts to Random (or Pressure if you have a graphics tablet), you can create a huge variety of marks from one brush. By dragging the sliders, you can set the minimum and maximum values.

Part 5: Art brushes

Use these versatile tools for creating a wide range of natural media effects...

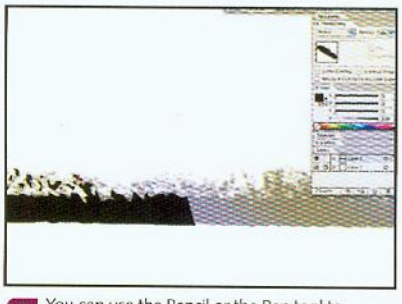


1 Art brushes are a useful way of creating strokes which can resemble a whole range of natural-media-type marks, from pen and ink to painterly strokes. Art brushes can be created in a variety of ways – experimentation is the key. Here are a number of methods and tips to get you started.

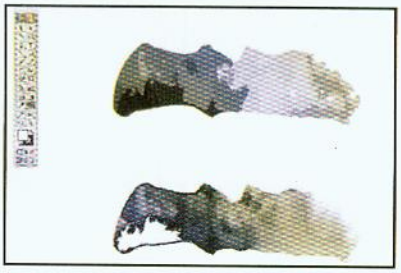


2 For best results, start off by actually scanning in various marks yourself. In *Photoshop*, go to Image>Adjustments>Levels to clean up the marks and save out to open up in *Illustrator*. You can then use these images as template layers to help recreate the look of the mark in *Illustrator*.

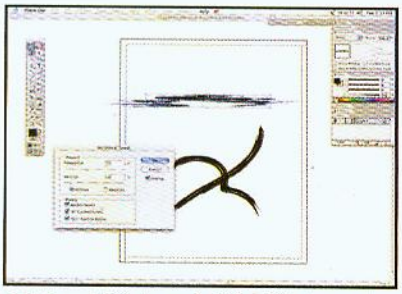
3 Open up an image to use as a tracing image in *Illustrator*. To make tracing the image easier, click on its layer and, in the Layers palette options, choose Template to fade and lock the image. This makes it much easier to draw over. If you double-click the layer, you'll open the Layer Options, which enable you to change the Dim amount, making it more or less faded.



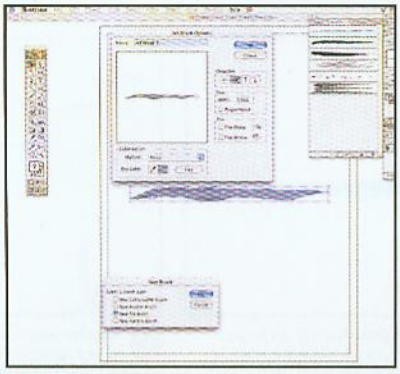
4 You can use the Pencil or the Pen tool to manually draw out a range of shapes and marks. It's often a good idea to use the merge pathfinder on the selected artwork to remove any overlaps in the artwork, because displaying complicated brushes can severely affect your display performance.



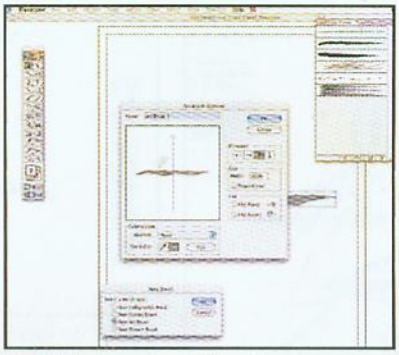
5 You can use the Auto-Trace tool in *Illustrator* to quickly generate artwork for use in brushes. Clicking on various areas of the mark will create paths from which you can create brush artwork. Use the selection tools to move and manipulate these paths to approximate the mark you're using. Once again, use the merge pathfinder to remove unwanted paths.



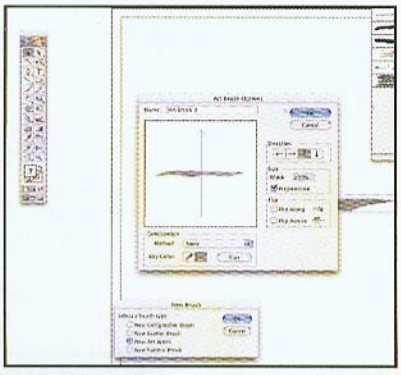
6 A great tip is to use the Filter>Distort menu to create interesting marks from selected artwork. The Roughen and Scribble & Tweak filters are great for giving artwork a rough sketchy feel. Use the sliders to alter the artwork until you're happy with the results. Experiment and see what you can come up with yourself.



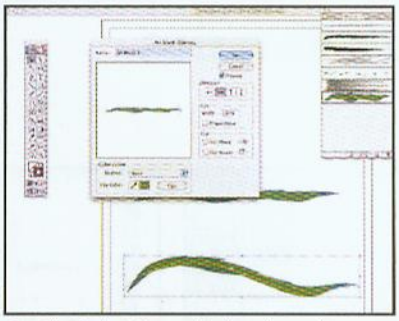
7 Once you've created the artwork you want to use as an art brush, select it and choose New Brush from the Brushes palette options, then choose Art Brush to open the Art Brush Options dialog box. You can rename the brush if you wish.



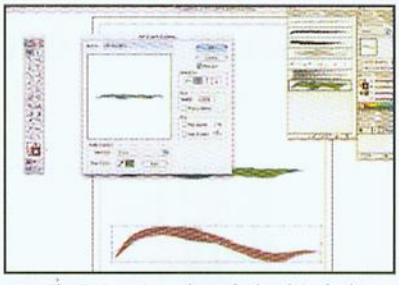
8 The large preview window shows your selected artwork with the currently selected brush direction. You can change this setting using the Direction buttons to alter the angle in which you want your artwork to be drawn when you create a brush stroke.



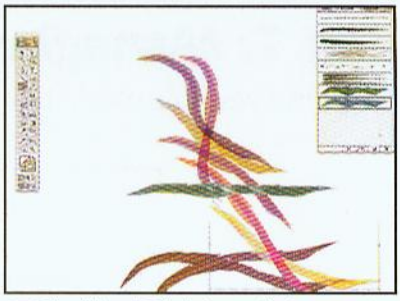
9 The Size setting enables you to scale the width of the art compared to the original by a percentage setting. Choosing Proportional keeps the proportion of the brush stroke the same as the original brush artwork.



10 The Colorisation method can be used to control how the stroke colour affects the colour of the applied brush. Colorisation can be applied to scatter art as well as pattern brushes. Choosing None keeps the brush colours as they were when the brush was created.



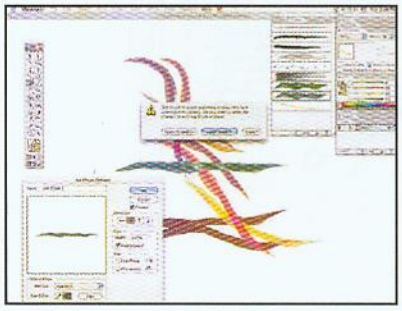
11 The Tints option colours the brush in shades of the stroke colour used. Tints and Shades colours the brush using the stroke colour but retains black and white, while Hue Shift uses the key colour as shown in the Key Colour box. Anything in the brush that uses the key colour becomes the same as the stroke colour, and other colours relate to this stroke colour.



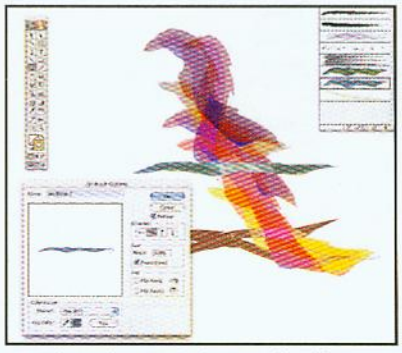
12 The different Colorisation methods are great ways of being able to control the colours of individual brush strokes by simply changing the colour of the stroke used. You can build up a variety of effects if you apply Transparency and Blending modes to brush artwork as you create it or to applied brush strokes.

Part 6: Modifying and editing brushes

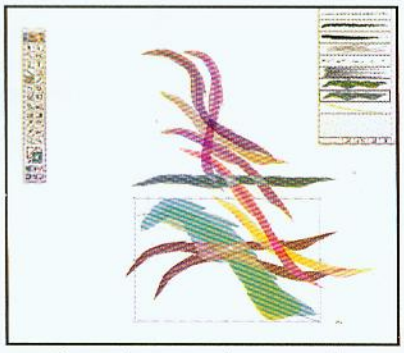
There are plenty of options to give you exactly the effect you're after...



1 Click on OK to accept the brush settings and store your new brush in the Brushes palette. You can double-click on any brush in the palette to edit it at a later stage. If you do so, a dialog box will appear with options which show how your changes will affect selected artwork.

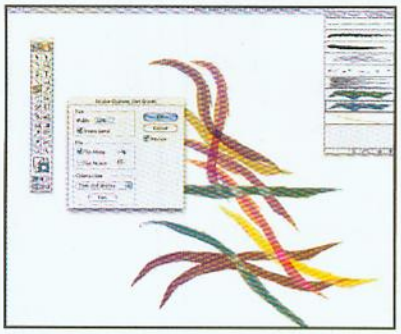


2 The Apply to Strokes button will update any existing strokes which use the current brush in your artwork, with the modified brush settings. It'll apply them to new brush strokes too.

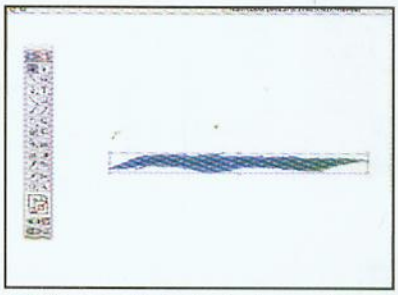


3 Choosing the Leave Strokes option will leave any existing strokes in your artwork which use the modified brush alone, but will apply the modifications to new brush strokes.

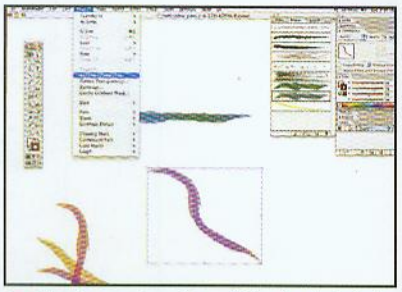
Modifying and editing brushes continued...



4 You can also change the options for individual brush strokes in your artwork. Select the brush stroke you want to modify and choose the options you want from the Brushes palette options, then apply your changes as necessary.



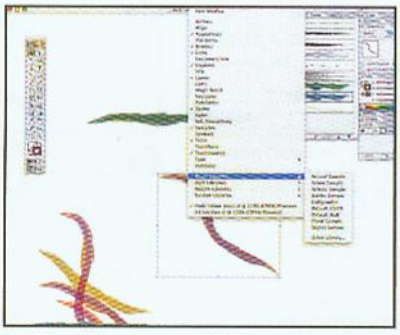
5 You can use the brushes in other ways too. For example, if you drag a brush from the Brushes palette to the artboard, you'll drag a copy of the original artwork which makes up the brush into your file. You can then edit this in the same way you would any other artwork, using the selection tools and/or drawing tools.



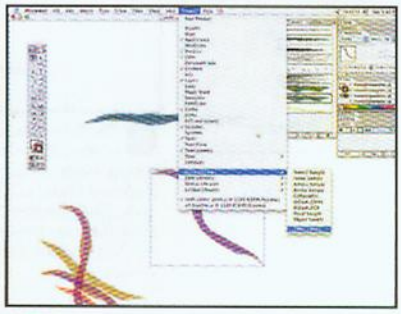
6 Another way to edit an existing brush stroke is to first select it in your artwork and then choose Object>Expand Appearance. This will convert the current brush stroke as it appears into editable elements. Note that when you do this, the original brush stroke path is retained, but with no Fill and Stroke settings.

Part 7: Managing brushes and brush libraries

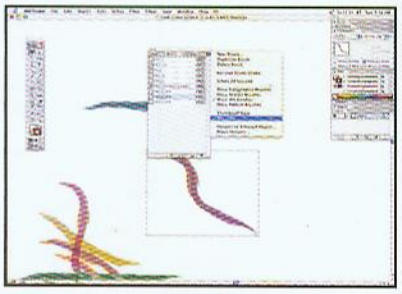
Organise your brushes into easy-access libraries...



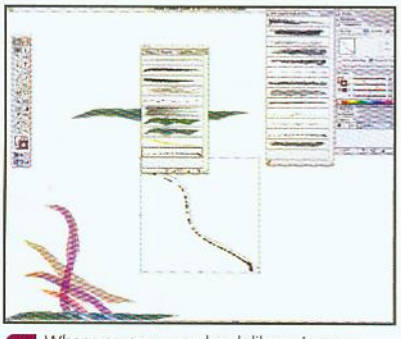
1 Brush libraries are used for organising and storing existing brushes or brushes which you create. You can open up a brush library at any time and bring brushes into the current Brushes palette to apply to artwork in the document.



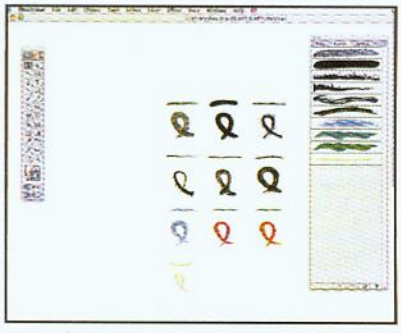
2 To access brush libraries, choose Window>Brush Libraries>[library name]. You can choose Other Library to find brush libraries which are not stored within the Brushes folder (found in the Presets folder inside the *Illustrator* application folder).



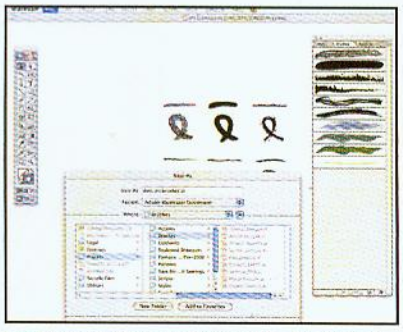
3 The Brush Options sub-menu enables you to change how brushes are displayed in the palette, as well as enabling you to create, duplicate and delete brushes. The Select All Unused option is useful for selecting unused brushes in your document, so you can remove them from the palette and keep it uncluttered.



4 When you open up a brush library to use a selected brush, you need to add it to your current Brushes palette. Simply click on the brush in the brush library and it should appear in the Brushes palette. Alternatively, apply it to artwork in your file or drag the desired brush to the Brushes palette.



5 You can create brush libraries simply by creating the brushes you want and storing them in the Brushes palette. In fact, you can delete any other artwork in the file, because it's only the contents of the Brushes palette of a file which determines the contents of the brush library.



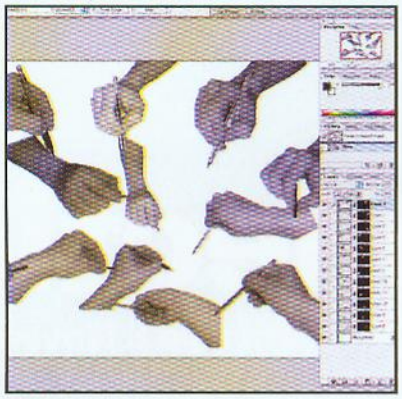
6 Save the file as an *Illustrator* file. If you want the library to appear in the Brush Libraries menu, save or copy the file into the Brushes folder, found in the Preset folder of *Illustrator*. The next time you start up the application, you can access your new library in the Brush Libraries menu.

Part 8: Creating an illustration

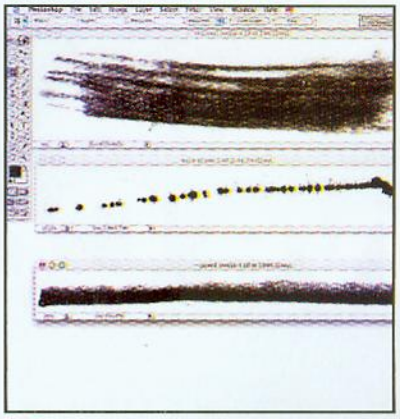
To finish this section, we show you how to use your newly acquired brush skills to create an illustration...

Making selections

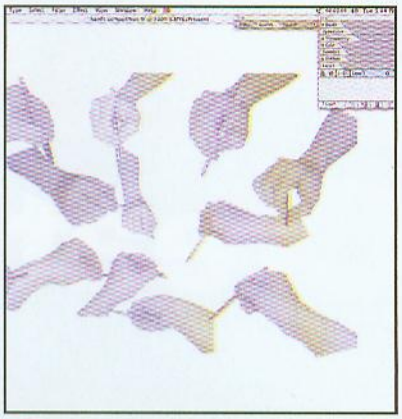
In *Photoshop*, you can make a selection using the Magic Wand tool. Using the Paths palette turns the selection into paths. You can use the Path Selection tool to select the path, copy it and then paste it directly into *Illustrator*. Alternatively, you can drag and drop into *Illustrator*. Be aware that this may take some time depending on the number of points used in the path.



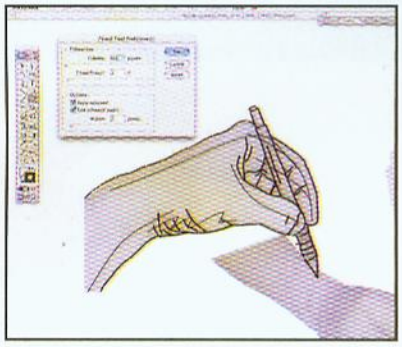
1 The first step in creating this illustration was to take a number of digital shots of hands holding various drawing utensils in different poses. The hands were then cut out and arranged into a pleasing composition using the Layers palette and the Free Transform tools.



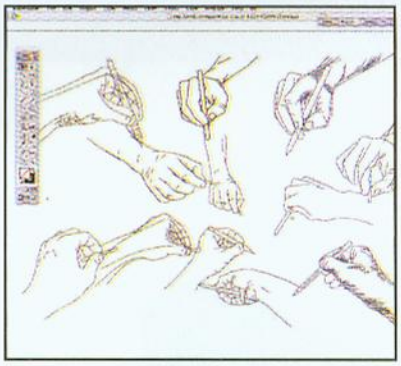
2 Next, a number of natural media marks were scanned from a sketchbook into *Photoshop*. These were then cleaned up and saved out as separate files to use as reference in recreating the look of the specific marks in *Illustrator*.



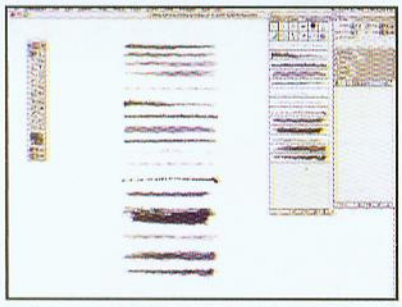
3 The file was resized, converted to grayscale and then saved as a TIFF file. This file was then opened in *Illustrator* and the layer was turned into a template using the Layers palette options to help with the next step of tracing the hands.



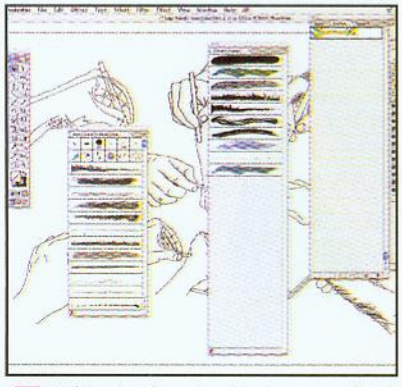
4 A new layer was created and named 'hand 1'. Using the Pencil tool, the hand was traced in a loose manner. Breaks were left among some of the lines to suggest a sketchier look. Fidelity was set to 1 pixel and Smoothness set to 2 per cent in the Pencil tool preferences.



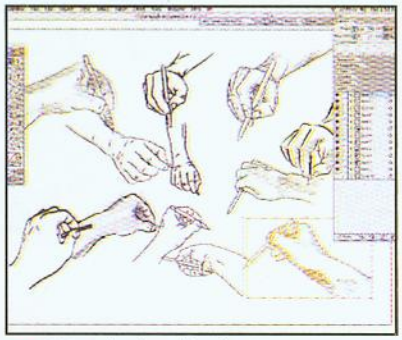
5 The other hand layers were created in a similar manner using a combination of the Pencil, Smooth and Pen tools. On certain hands, embellishments were made, such as overlapping lines, broken lines and lines to suggest form.



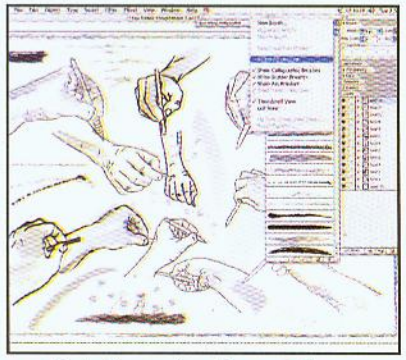
6 A number of different brushes of different types were created using a combination of techniques. Some were created using paths made in *Photoshop*, others by manually recreating the feel of the mark using drawing tools and filters. The Pathfinder>Merge and Path>Simplify commands were used to prevent some brushes from becoming too complicated.



7 At this point, the various brushes were collated and saved as brush library files. You can find these on the cover CD along with the rest of the tutorial files and extra brush files. The libraries were then loaded into the multiple hands file and applied to different hands.



8 Various hands and brush settings were tweaked, some lines were duplicated so that multiple brushes could be applied, and various shading-like marks were created to add interest to the hands. The great thing about using the brushes is that you can make drastic changes to an image fairly rapidly, so you've got more time to experiment and create a number of different variations.



9 The last step was to add some marks on a separate layer around the composition to suggest a sketchbook-like quality to the illustration and tie in the whole composition. Unused brushes were selected using the brush palette options and removed to save on overall file size. The final file was then saved. ca•p

Illustration: Domanic Li [w] www.organisart.co.uk

SECTION **SIX**

Create a colourful linocut image

Use *Illustrator's* drawing and painting tools to make a fake linocut image...

Over the next six pages we'll give you a step-by-step guide to creating this linocut-like illustration entirely in *Illustrator*, using a combination of the program's tools and artistic techniques. Using the brush skills outlined in Section 5, we show you how to use strokes, cuts and colour to make a convincing natural media image.

Expertise provided by Domanic Li. Domanic has been a freelance designer for five years and he also lectures in graphic design and illustration at Hull College of Art and Design. You can contact Domanic via the Organisation at [w] www.organisart.co.uk, [t] 020 7833 8269.

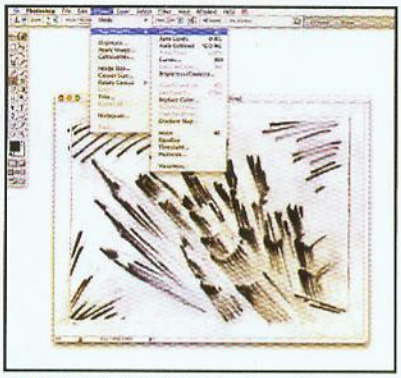
Files on disc
All the files needed for this tutorial can be found on the cover CD. Go to: Software \ Tutorials \ Illustrator / Photoshop tutorials \ Dual \ Illustrator tutorial \ Section 6.

Part 1: Initial preparations

Start your illustration by creating a brush library and a template layer...

Making brush marks

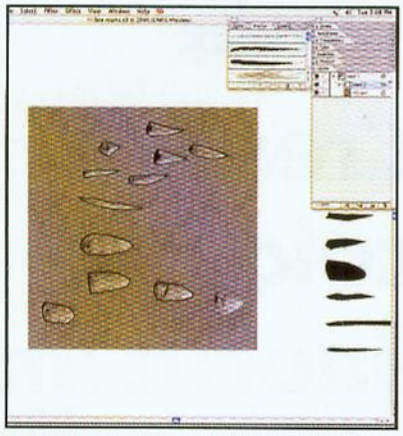
A fun and quick way of making marks for use in brushes is to use the Warp tools. Start out by loosely sketching shapes with the Pencil tool, then use the Warp tools to distort the shapes into interesting forms. Use the pathfinder or make compound paths or groups of shapes to create all manner of paint and brush effects.



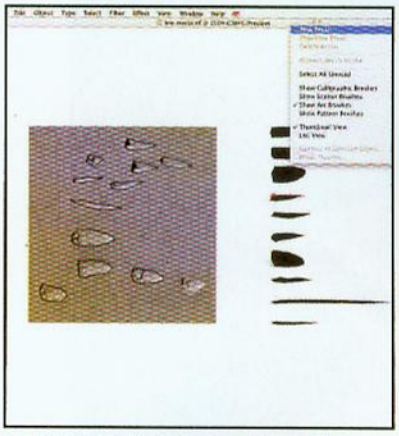
1 We started this illustration by roughly sketching out a design of various drawing media. This was then scanned into *Photoshop* and the levels were boosted before the file was saved as rough.tif (you can find this file on the cover CD).

2 To help out with creating the brushes which are going to be used in the illustration, a number of linocut marks were also scanned and cleaned up in *Photoshop*.

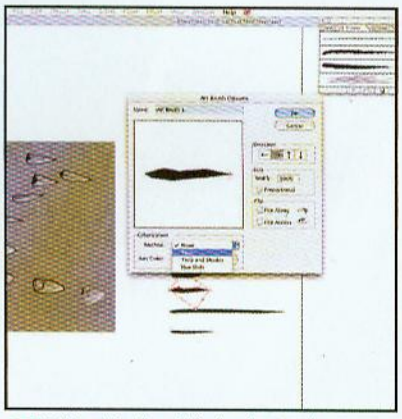
3 The next step is to create a brush library file with various lino-type brushes. From the cover CD, open 'lino marks.tif' in *Illustrator*. Choose Window>Brushes to open the Brushes palette.



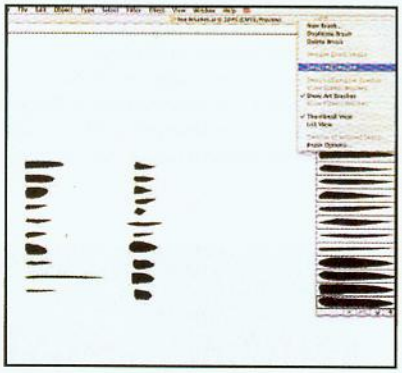
4 Using the Pen tool (or Pencil tool) begin drawing a number of shapes as shown. It's important to create a variety of marks so that the brushes don't look too uniform later on.



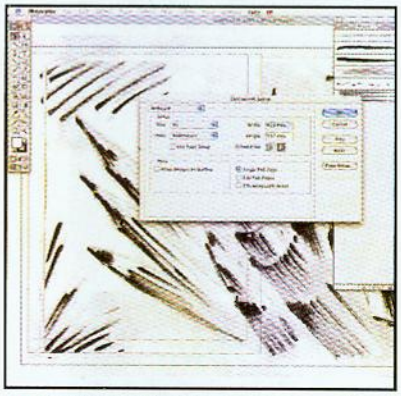
5 Select one of the shapes and choose New Brush from the Brushes palette options. Choose New Art Brush from the pop-up dialog to open the Art Brush options.



6 Set the direction of the brush using the direction arrows and then choose Tint as a colouring method from the Colorisation options. This means you can change the colour of various brushes later.



7 Repeat for the other marks to create a number of varying brushes. Choose Select All Unused from the Brushes palette options and click on the trash icon to delete them. Delete the lino marks image and any other artwork, and save the file as 'lino brushes'.



8 To begin the illustration proper, open up the CD file called rough.tif in *Illustrator*. Set the Artboard size using the document set-up and specify your page set-up options. Turn off page tiling by using View>Hide Page Tiling.

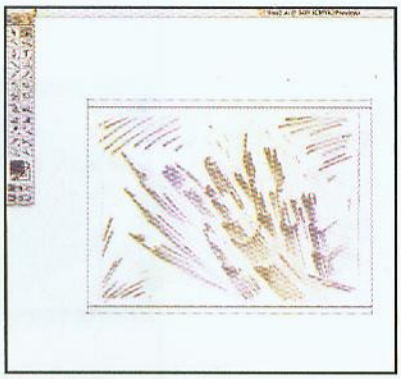
9 In the Layers palette, rename the layer 'rough' and open up the Layers palette options. Choose the Template option to turn the layer into a template layer, making it easier to draw over.

Part 2: Laying down the foundations

Draw around your shape and surround it with a border...

1 Load up the lino brushes library by using Window>Brush Libraries>Other Library and navigating to the previously saved file. Click on the brushes one at a time to import them into the Brushes palette. Remove the default brushes if you wish.

2 Create a new layer in the Layers palette and rename it 'main shape'. This shape is going to define the outline of the various drawing utensils in the illustration.

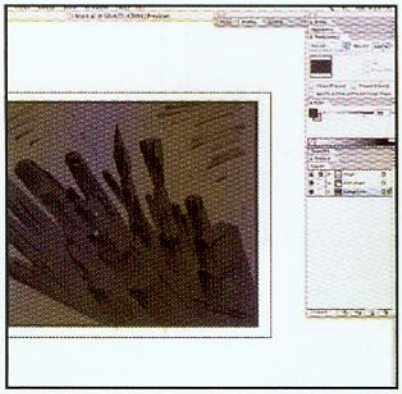


3 In the Layers palette, drag the template layer above the main shape layer. Unlock the template layer and select the rough image. Use the Transparency palette and set the blending mode to Multiply, then re-lock the layer.

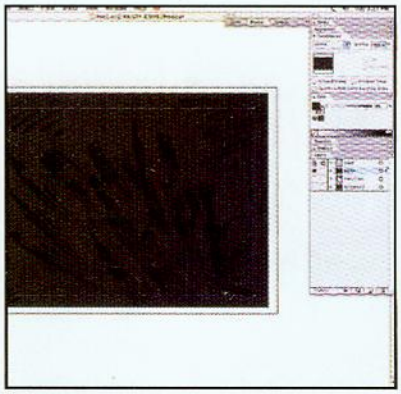
4 Make sure that the Fill and Stroke settings are set to one stroke and no fill. Using the Pencil or Pen tool, begin following the outside shape of the drawing utensils.

5 Continue drawing around the shapes of the various drawing utensils. Don't worry about being too accurate, because a sketchy feel to the lines will add to the overall look of the illustration.

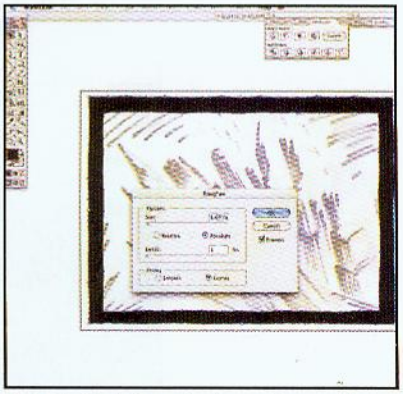
6 Continue to draw around the outside of the illustration and close the path. Next, give the shape a fill as shown above and remove the stroke by clicking on the None icon at the bottom of the toolbar.



7 Create a new layer in the Layers palette and drag it below the main shape layer. Rename this layer 'background' and then use the Rectangle tool to create a block of colour slightly darker than the main shape layer.



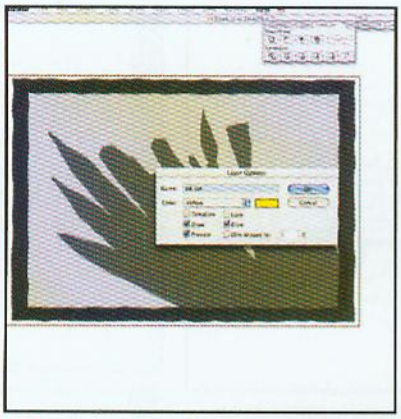
8 Create another new layer and drag it to the top in the Layers palette. Rename this layer 'border' and then draw out a rectangle slightly larger than the background layer shape. Draw out a second rectangle within the first rectangle.



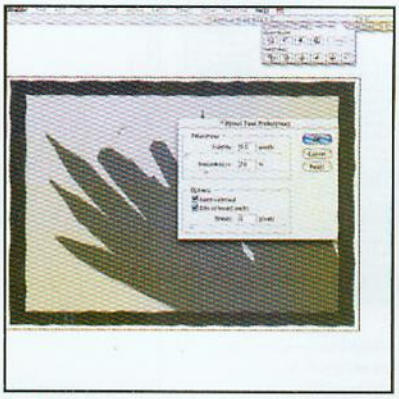
9 Select both the rectangles and then use the pathfinder (Window>Pathfinder) to subtract from the shape area. Next, use the Roughen filter with settings of about 1mm for the size, and 1in for detail. Ensure the Absolute option is chosen.

Part 3: Creating the 1st 'cut'

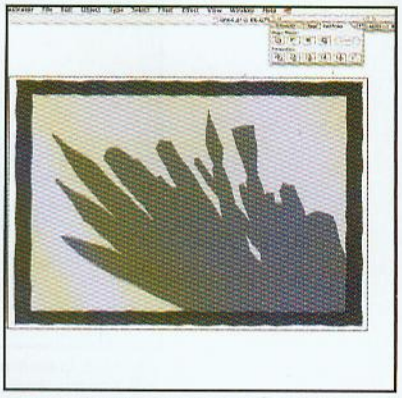
Trace around areas of the drawing utensils to define the highlights and shadows...



1 Create a new layer in the Layers palette and rename the layer '1st cut'. This layer is going to define the basic highlight and shadow areas of the various drawing tools in the illustration.

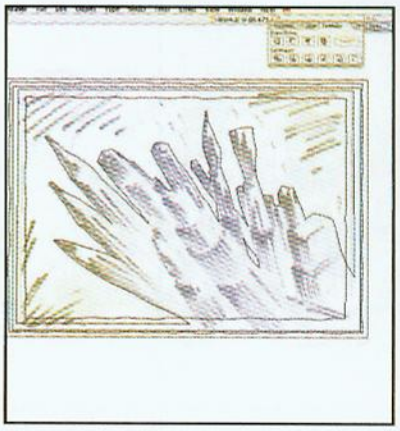


2 Double-click on the Pencil tool in the toolbar to open up the Pencil tool options. Set the Fidelity to 0.5 and the Smoothness to around 20 per cent. Make sure that the Keep Selected option is turned on.

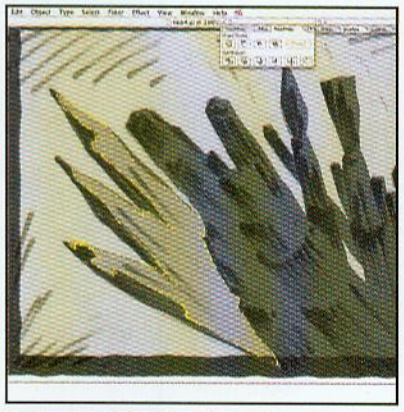


3 Using the Fill and Stroke settings at the bottom of the toolbar, make sure that you set the fill to none and have a basic stroke. This makes it easier to see as you trace around the areas you want to highlight.

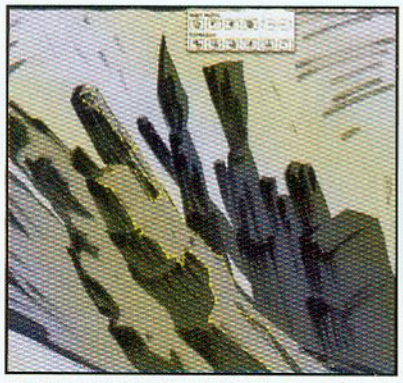
4 You can also use View>Outline to see your work in outline mode. This enables you to concentrate on just the pure linework in the illustration without fill or stroke settings getting in the way. To return to normal use, go to View>Preview.



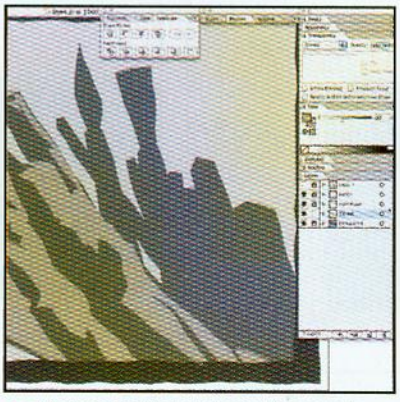
5 Because we made the rough layer into a template in the first place, the rough image is still visible in artwork mode. This means you can still use the rough image to trace over.



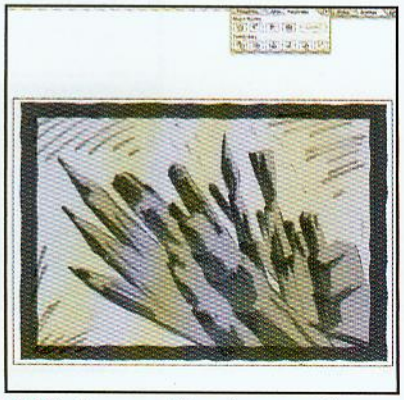
6 Using the Pencil tool, start to draw around the rough highlight areas of the drawing utensils. You can use the Pencil tool to correct your drawing as you go, by simply redrawing over parts of lines you want to change.



7 Go around blocking in the other areas of the main highlights. As before, don't worry about being too neat here, because the roughness of the linework will add to the overall look of the final illustration.



8 You can check how your work is progressing by clicking on the visibility icon in the Layers palette for the rough layer. Right now, you just want a general sense of light and shade in the image.



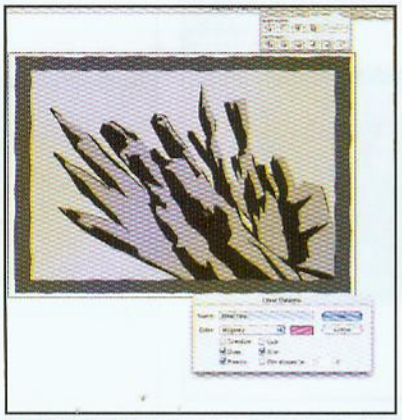
9 Continue around the various areas until you have something similar to the above. At this point, you can use the white selection tool to adjust any areas you're not too happy with. Save the file.

Part 4: Adding the detail cuts

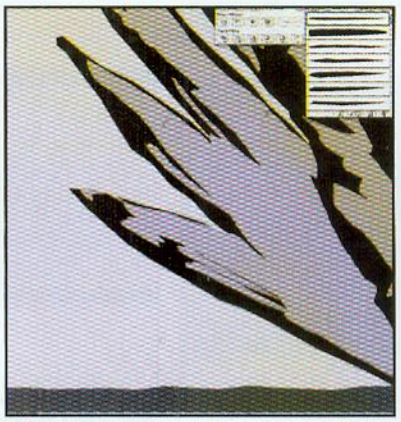
Draw some rough cut marks in the composition...

Outline view

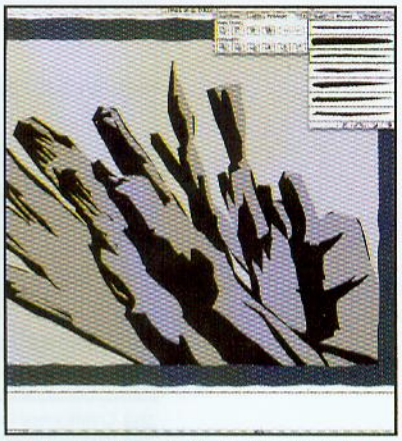
You can use View>Outline to see your strokes in outline view. This displays only the bare stroke information and hides all fills, stroke thicknesses and brushes in your artwork, which can make it easier when first drawing your lines. You can switch back to normal view from outline view by choosing View>Preview. Alternatively you can hit Command-Y to toggle between artwork and preview.



1 Create a new layer in the Layers palette and rename it 'detail cuts'. Lock all the other layers and set the fill to none, and the stroke colour to match the colour of the 1st cut layer. You may need to hide the rough layer first.



2 Now choose a brush from the Brushes palette and start drawing rough cut marks on the shadow areas of the image. Because we set the Colorisation to Tints in the brush options, the brush stroke takes on the colour of the stroke colour itself.

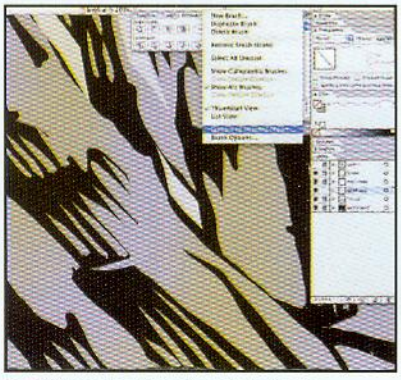


3 You can also use the Pen tool to add cuts if you feel you don't have enough control over the Pencil/Brush tool. In order to reset the Pen tool, click on its icon in the toolbar or press 'p' on the keyboard.

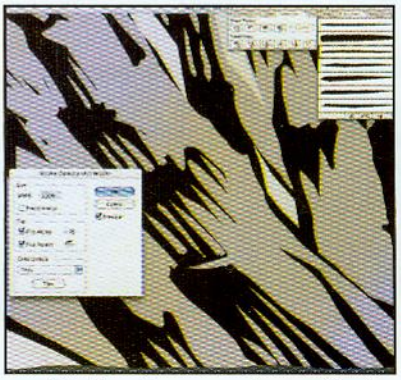
4 Continue around the other areas, adding cut marks as necessary. Toggle the visibility of the rough layer on and off to help check how things are shaping up as you progress.

5 Even at this stage, the brush marks are already helping to recreate the look and feel of a linocut illustration. You can use the white selection tool to adjust any cut marks as necessary by dragging the points around.

6 Now you can start selecting individual cut marks and changing them by using the Brushes palette. Choose various marks and then click on different brushes in the palette to add variety to the range of cut marks.



7 You can vary the cut marks further by selecting individual cut strokes and choosing Options of Selected Object in the Brushes palette options, or by clicking on the icon at the bottom of the Brushes palette.

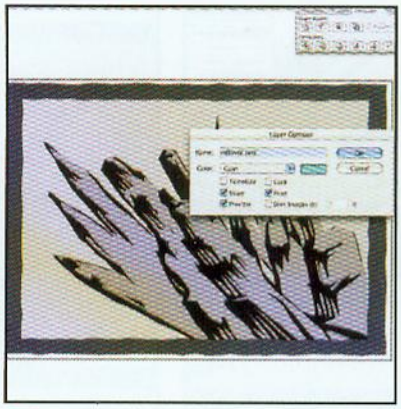


8 Using the options, you can change settings for individual strokes such as width settings, or you can flip brushes along or across the path. Make sure Preview is turned on so you can see how your changes affect the stroke.

9 Carry on tweaking individual cut strokes until you're happy with the results. Adding variety to the cut strokes prevents the artwork from looking too regular. Save the file once you've finished.

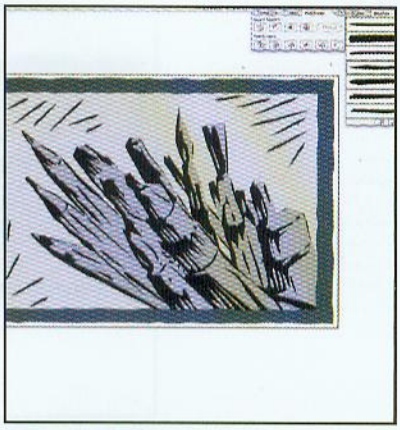
Part 5: Additional detail

Add more strokes to your image and tweak the cut marks...

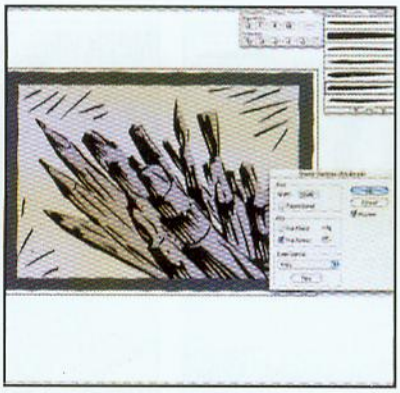


1 Create a new layer in the Layers palette and rename it 'leftover cuts'. Lock all the other layers for now. This layer will define the leftover cut marks commonly found in lino prints to help add a little more detail and interest.

2 Using a dark stroke which matches the background layer, begin to add more strokes to define areas of the illustration, such as the edges of the pencils and brushes and the curves of the marker.



3 Now add some more cut marks around the blank areas of the illustration to create some visual interest in these areas. Adjust any strokes as necessary with the white selection tool.



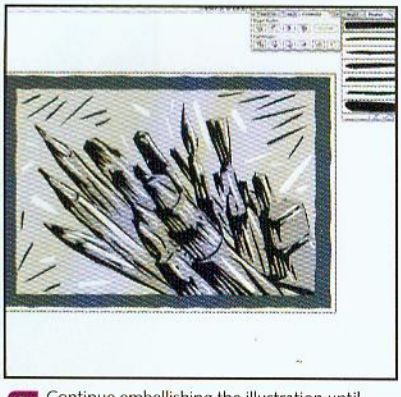
4 Once again, start selecting individual strokes and tweak them using the Options for Selected Object technique to give variety and interest to the various strokes and marks. Continue tweaking until you're happy with the results.

5 Now create a new layer and rename it 'highlight cuts'. Lock off all the other layers again. This layer is going to define the highlights of the various objects in the illustration.

6 Choose a light-coloured stroke and then begin adding highlight cuts around the image to give an impression of light bouncing off the various drawing tools in the illustration.

7 Create some more highlight strokes around the background area of the image. Now start selecting individual strokes and replace the brushes used again to add variety to the marks.

8 Go around individual strokes again and edit them as necessary using the options for selected object technique. Tweak individual points with the white selection tool if necessary.

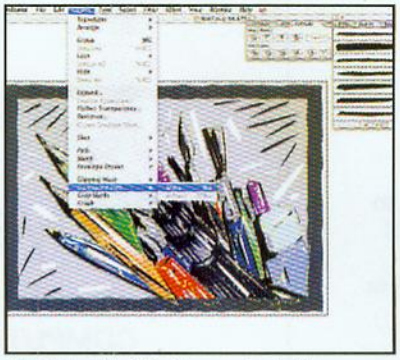


9 Continue embellishing the illustration until you've got the results you're after. The highlights really bring out the illustration, so experiment and continue to change things as needed. Once you're done, save the file.

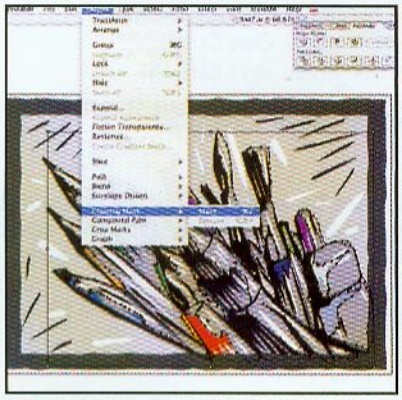
Part 6: Finishing touches

Add colour, gradients and textures to finish off your illustration...

1 Create a new layer in the Layers palette and rename it 'colour'. Lock off all the over layers. Use the Pen or Pencil tool to start drawing blocks of colour over various areas of the illustration.

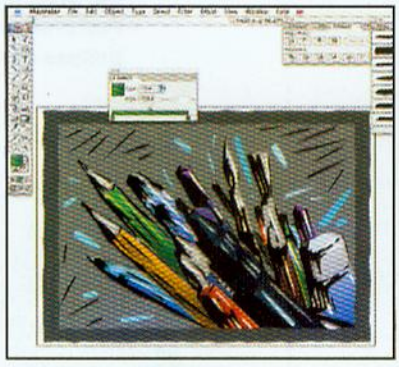


2 Unlock the 1st cut layer and select the contents using the target button in the Layers palette. Now choose Object>Compound Path to turn the separate shapes into one whole path. Using the selected art indicator, hold down the Alt key and drag the indicator chip to the colour layer to drag a copy of the Compound Path to the colour layer.

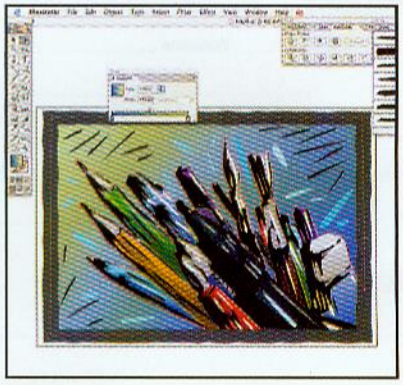


3 Use Object>Arrange>Bring to Front to bring the Compound Path above the colour blocks. Use the target button again on the colour layer and use Object>Clipping Mask>Make to use the path as a mask for the colour.

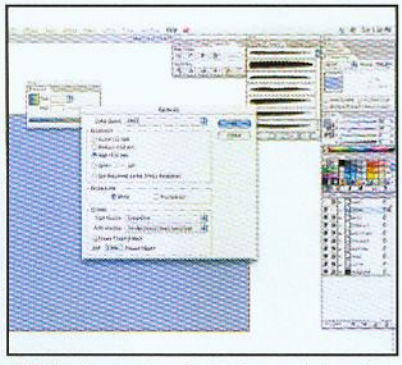
4 Lock all the layers except for the highlight cuts layer. Select individual strokes and change the stroke colour to colourise the cut marks, matching them to the colour blocks you created earlier.



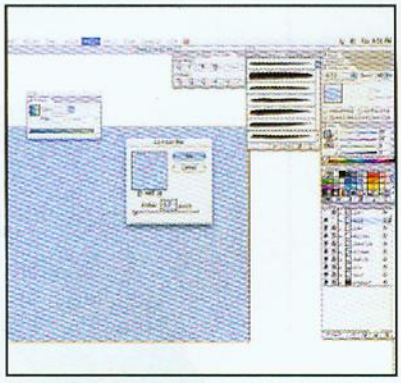
5 Use the Swatches palette and the Gradient palette to create some basic gradients to apply to your colour blocks. You can use the Gradient tool in the toolbar to set how the gradients lie in the colour blocks – drag over them to set the start, end and angle of the gradients.



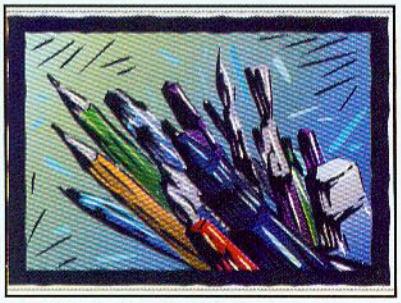
6 Lock all layers except the main shape layer and continue by applying a gradient to the main shape path to colour the background. Go around tweaking colours of various strokes on the other layers until you're happy with the results.



7 Create a new layer in the Layers palette and rename it 'texture'. Use File>Document Colour Mode>RGB in order to use the filters. Using the Rectangle tool, draw a box slightly larger than the border and give it a medium-colour fill. Use Object>Rasterise and set the resolution to whatever you wish to use.



8 Use Filter>Texture>Grain to apply a texture to the rectangle. Then apply an Intensity setting of 75 and a Contrast setting of 90 using the contrasty grain type. Now apply Filter>Blur> Gaussian Blur with a radius of around 1.2 to soften the texture a little.



9 Using the Group Selection tool, select the outer shape of the border and Alt-drag it to the texture layer. Target the texture layer and use Object>Clipping Mask>Make. Finally, set the blending mode of the layer to Soft Light. Delete the rough layer and save your final file. Once you have a grasp of the processes involved, you can easily adapt these techniques to create a whole range of natural media type effects, such as woodcuts, paintings and other traditional printing methods. ca-p

25 tips for 3D natural media effects

Get the most out of your 3D applications with our top tips for creating natural media...

Natural media is not something that immediately springs to mind when you think of 3D graphics. With a bit of ingenuity, however, your humble 3D program, more used to churning out photorealistic images, can be pressed into service for creating un-photorealistic renders too. It's also very good for turning the raw subject matter you'd normally transform in *Photoshop* into seriously good natural media images.

Where 3D usually comes unstuck is in the lighting, but recent technological developments in this area have proved fruitful in producing naturalistic rendering of scene illumination. Global illumination (AKA radiosity) techniques are available in all of the top 3D applications: *Cinema 4D*, *3ds max*, *Maya* and *Softimage XSI*. Even some of the mid-range programs such as *Carrara* and *Strata Pro* offer their own take on radiosity rendering. This will play a key part in getting good natural media renders, particularly when attempting to produce 'painted' images such as still life, landscape and portraits. If you want to create a less traditional look then you don't even need radiosity. The following tips will help you to get the most out of any 3D rendering package when attempting to attain a natural media-style end result. >

Expertise provided by Simon Danaher. You can contact Simon at **[e]** simon.danaher@ntlworld.com

1. toon rendering

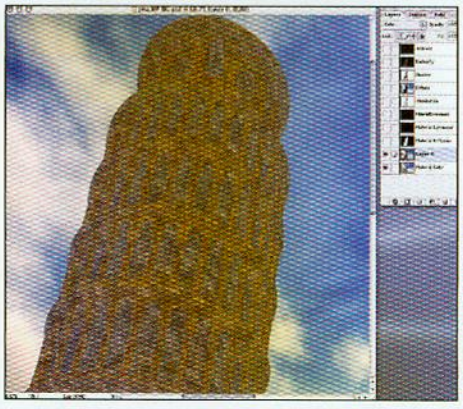
There are lots of natural media styles, but the most obvious one to try first in your 3D program is flat 2D-style rendering. This is quite a popular technique, with 3D programs increasingly being used to create 2D cel animations. As a result, many of the top 3D programs come with some sort of cel-look rendering option. With cel-look/toon rendering, you usually have the option to render out 3D scenes as flat coloured artwork, with and without ink outlines. This is a good starting point for other natural media effects, because you can more easily post-process such a non-photoreal render in *Photoshop*.

2. separate your ink and paint

When using toon rendering and subsequent *Photoshop* post-processing, it's often advantageous to render out the ink and paint as separate 'passes' (see tip 3). With the colour and ink passes as separate layers in *Photoshop*, you have much greater control over the look of the image you're creating. For example, you can change the colour of the ink independently of the paint (and vice versa). You could also apply some different filters to each layer. Using some of *Photoshop's* Distortion and Artistic filters is a good way to impart a more sketchy look to the ink outlines.

3. render passes

In 3D, a 'render pass' is a render of your scene containing only certain colours or illumination components (for example, reflection only, diffuse shading only, specular highlights only, and so on). The simplest kind of passes would be rendering the colour RGB component and mask (alpha) component separately. However, you can usually isolate individual surface properties as well, such as the luminosity, diffuse and raw colour components of a 3D scene in a render pass. For post-processing, this is an area of immense experimental possibility.



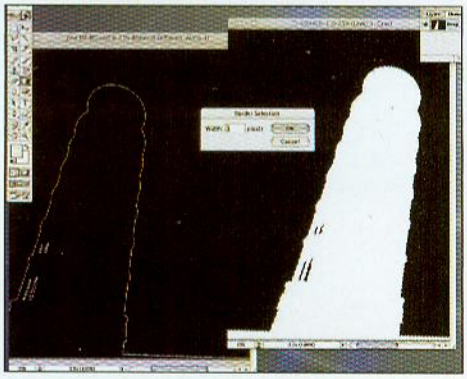
Multipass rendering techniques enable you to extract perspective-accurate flat colour 'textures' of a model, which you can then paint over or filter in *Photoshop*.

4. modelling techniques

Of course, you can apply many of these rendering techniques to normal 3D models and scenes — those which have been constructed to be rendered in a photoreal way — and get good results. However, if you have a specific look in mind then a photoreal model may not be suitable. In such a case, build your model with a natural media look in mind. If you want the final image to look rough and sketchy or blocky then make your model roughly, paying close attention to the appearance of the edges.

5. outline trick

If your 3D application doesn't have an outline rendering facility, there are a number of tricks you can use to create them. The easiest one is to render out your object with a 100 per cent luminous material. Set the material's luminosity or ambience or incandescence to full brightness, disable all scene lighting and render out a pass (incidentally, you could also just render an alpha mask instead). Open this in *Photoshop*, go to Channels and load one of the RGB channels as a selection. In the Selection menu, choose Modify>Border and set the width of your outline in pixels. Save as a new channel. This will give you a workable outline for any object, which can then be filtered in any way you see fit.



Create an outline for any 3D object using the Select>Border command in *Photoshop*.

6. outline shadows

For natural media animations, or if you want a bit more 3D fun, you can try the outline shadow trick. Add a spotlight to your 3D scene and group it to your camera. Position the spot exactly at the same location and pointing in the same direction as the camera. Make sure that Depth Map Shadows are enabled. The next step is to place a vertical plane behind your object, facing the camera — this is to catch the shadows on. Do a test render. You'll see that your 3D object has a black glow around it. You can post-process using Levels to achieve all manner of outline effects. (Note that if your 3D program supports shadow-casting ambient lights then this will work even better.)

7. hatching

If you want to get a hatching-style image then you could create a hatch texture in *Photoshop* – a simple version can be made by motion blurring some noise. Apply this texture in the diffuse channel of your material and apply it to your object, using planar mapping angled to get the best fit. Use a single bright spotlight so that the illuminated areas burn out. Render, then apply Image>Adjust>Posterise in *Photoshop*. The result should be at least a good start for a hatching look, because the illuminated areas will be flat white while the hatching will become visible in the shadow areas. If supported, using Frontal (Screen Space) mapping will prevent the hatches from distorting around the object's surface, therefore providing an even better result.

8. hatch textures in photoshop

You can create a quick hatching texture in *Photoshop* to apply to your 3D model, but here's a slightly better cross-hatch one. Fill the background with noise, and motion blur it at 45 degrees to get long streaks. Apply Image>Adjustments>Posterise set to 4-6 steps. Use Levels to squash the tones and make a denser or looser hatch. This is good as a single direction hatch texture, but to create a cross-hatch you need to duplicate the layer and apply it in Multiply mode. Finally, rotate the duplicated layer by 90 degrees to make hatch lines which are perpendicular to the background ones.

9. plug-ins and shaders

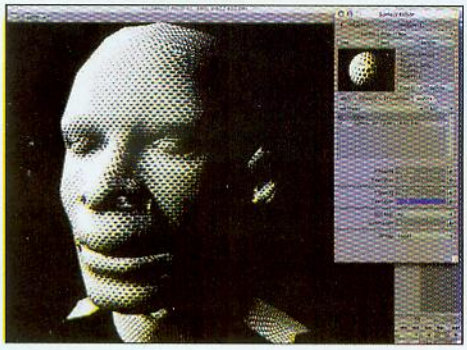
Brute-force methods aside, it's worth checking on the Internet for any free shaders or plug-ins for your 3D program which offer natural-media output. There are a number of free shaders available for *Maya*, for example, which simulate hatching and spot-density style 2D output of 3D scenes. There are also lots of toon shaders, which are a good starting point for further development. Check out [w] www.highend3D.com for a good list of downloadable shaders.

10. maya shaders

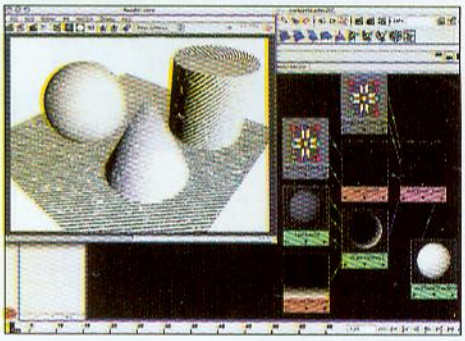
Part of the problem with a lot of 3D programs is that they don't offer the kind of low-level access to shading parameters which is necessary in order to construct really good natural media shaders. However, *Maya* does offer such access, thanks to its node-based shading system. For example, you could create a halftone spot-density kind of shader for *Maya* by linking a shader which generates spots to the light intensity of the scene material. To do this would require the use of an info-gathering node such as Surface Luminance. Using a single light to illuminate the scene, Surface Luminance would gather the illumination information and this in turn could be used to drive the 'spot-size' of the spot shader – bigger dots in darker areas and vice versa. The result would be a shader which simulated a stippled two-tone image.

11. lightwave shader

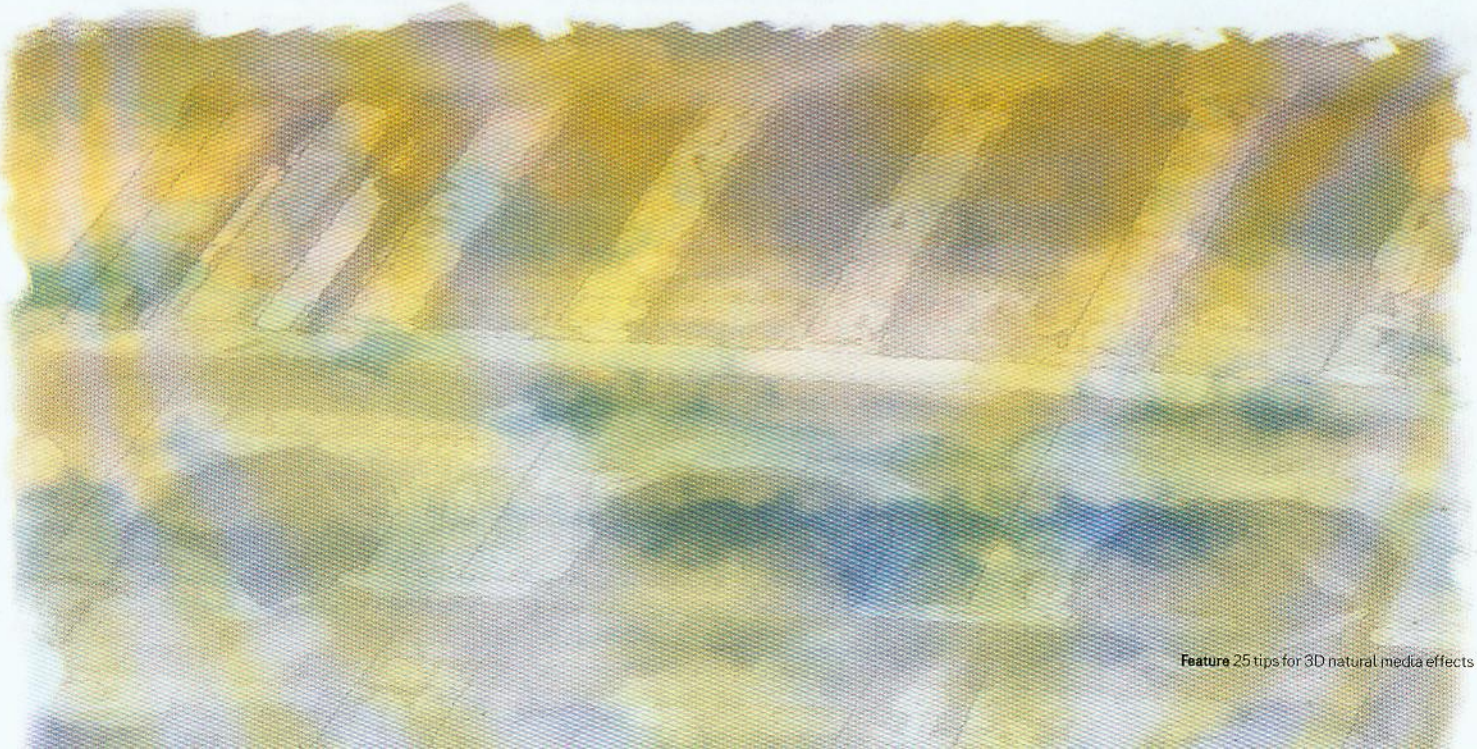
LightWave comes with a built-in halftone shader which you can apply to any object's surface (obviously it makes sense to have the entire scene on one surface when using this shader). The shader creates halftone shading in a similar way to the *Maya* technique above, but it's much simpler to use. The shader has a pop-up menu with options to change the dot shape. Other shapes include line, hatch, square and chex. Once rendered, you can apply filters to the end result in *Photoshop* to get a more natural, hand-finished look.



Create a crosshatch texture which you can use on your 3D models in *Photoshop*.



Here's an Escher shader for *Maya* by Richard Greenspan, downloaded from [w] www.highend3d.com



ZBrush enables you to give texture to your paint effects, so you can literally paint in 3D.

LightWave's halftone shader is a quick and easy way to achieve interesting natural media effects.

12. zbrush

If you really want to experiment with 3D's potential as a natural media simulation tool then you would do well to check out *ZBrush* by Pixologic ([w] www.pixologic.com). *ZBrush* takes the concept and technology of 2D and 3D artwork and blends the two together. The result is something altogether different. By providing paint with real depth to it, you can literally paint in 3D, but you can also use 3D tools to help with the process of creating a 2D image which has good perspective and other realistic properties. At the same time, you can choose to give texture to your paint so that it looks like traditional media, such as oil on canvas.

13. poser figures

Though you can achieve some cool natural media output from a 3D program, another way to use 3D is in a supportive role. For instance, you might want to paint a figure, but achieving correct perspective and proportions may not be your strongest skill. With a program such as *Poser* at your disposal, you can very quickly try out different figures and poses, setting up different camera views and lenses in order to get the perfect image. Render this out very simply and use it as a guide layer in *Photoshop*, painting over the top of it using *Photoshop's* natural media brushes.

14. abstract art effects

When the term 'natural media' is used, the first thing that tends to spring to mind is traditional artist media like watercolour or oils and images of bowls of fruit or figures in languid repose. However, abstract art is another area where 3D can be used. For instance, fractal shaders can be useful for creating organic-looking surfaces, but also for creating abstract forms for the subject of a piece of artwork. Try applying fractal noise as a deformer of an object, or use it as a shader in a displacement channel.

15. landscapes

3D is a perfect choice for creating landscapes. The 3D model can be created quite roughly, depending how the final image is to look and how much post-render work you intend to do. The ease with which it's possible to render from different camera angles is a great advantage over just painting the scene in *Painter* or *Photoshop*. Outputting such a scene and then post-processing in *Photoshop* to get a natural media look using techniques mentioned here is a good way to produce a lot of natural media landscape images very quickly. You could even set up an action in *Photoshop* to apply the filters to a folder full of renders, or an animation (if rendered as a still image sequence).

16. anything's possible

If you stretch the term 'natural media' a little then you'll see 3D's potential to achieve photoreal images. You may not have the backing to be able to go out and pour several tons of concrete into the inside of a house, but anything is possible in 3D and without the costs relating to scale. Perhaps you'd like to do some virtual sculpture, or saw a cow in half and float it in a tank, or arrange bricks into a pile on the floor of a building. Because 3D programs can simulate reality to a high degree of accuracy, all you need to do is supply the idea and it can be realised. At least in the virtual world anyway.

17. animation

Animation doesn't immediately spring to mind when thinking about natural media, but using a 3D program opens up the possibility of creating animated natural media imagery. This might be for a motion graphics sequence, in which case Adobe *After Effects* is a superb companion, enabling you to perform *Photoshop*-like post-render editing of images so that they look more convincingly natural.

18. fill lights

If making use of the raw RGB data from a 3D render (as you might with a photographic image) and then post-processing it in *Photoshop*, it's important to pay close attention to the lighting of the 3D scene. What tends to give away a 3D image are the hard black edges you get in the shadow areas of objects. In reality, and therefore in a natural media rendition of reality (such as a still life), when objects are close to each other, the light bounces between them causing subtle colour and shading shifts as one object illuminates the other. Unless the brightness is very low, objects close together like this are almost never totally black, but have some amount of 'bounced' illumination. Making use of fill lights, with fall-off enabled, can help you to recreate this illumination in 3D and therefore make your natural media rendition look like it was painted with a lot more skill and detail.

19. radiosity

Following on from the previous tip, if your 3D program supports it, then making use of radiosity rendering techniques will help to achieve naturalistic lighting without the arduous set-up time required by the use of

many fill lights. Once again, paying attention to the naturalness of the rendered image will pay dividends when you come to convert the render into a natural media image in *Photoshop*. This is especially true if you want to simulate a fine oil-painting style, for example.

20. automated rendering

A program such as *Piranesi* by Informatix offers an automated solution to rendering using natural media effects. *Piranesi* can import 3D models in most popular formats, including 3DS, OBJ and DXF. Once you've built your 3D model, you can export it to *Piranesi* for rendering in a number of artistic styles. Styles supported include pencil sketch, pen and ink, outline, woodcut, watercolour and more.

21. outline and colour wash

A simple outline and colour wash style can be created by using two render passes. The first is an outline render of the key elements of your scene. (Note that it might be useful to separate this render into a series of separate renders, because many of the techniques mentioned here for creating outlines won't work correctly when objects overlap each other.) The second render pass is the material colour pass. Some 3D programs enable you to render out this channel directly (*Cinema 4D* and *LightWave*, for example), which makes things easier (see tip 22 for the manual method). In *Photoshop*, distort the outline using the Ocean Wave, Glass or Displace filter to give a rougher look to it over the colour layer in Multiply mode. Then blur the material colour pass and apply the Glass filter too. The more initial blurring, the more 'washy' the colour wash.

22. outline thickness

You can create a variety of outline effects using different filters in *Photoshop*, but you'll often need a thicker line than your 3D app produces. Render out your outline pass and open in *Photoshop*. To make it thicker, you can blur it then darken it using Levels to boost the black point. Do this by moving the black input slider to the right. You may need to pull in the white input slider too, just to maintain definition. Using this technique, you can double, triple or even quadruple the line thickness of a rendered outline. The downside is that you'll lose some detail, but that's probably what you want anyway.

23. ripple

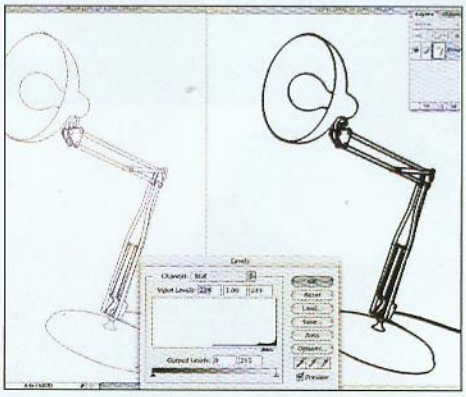
Using the Ocean Ripple filter in *Photoshop*, you can create a variety of sketchy styles from clean, 3D rendered outlines. A good trick is to create the outline in layers, using Multiply blending mode for each outline layer and applying Ocean Ripple to them. The trick is to vary the intensity and scale of each application of the filter so that the distortion doesn't line up in any of the layers.

24. extreme radiosity

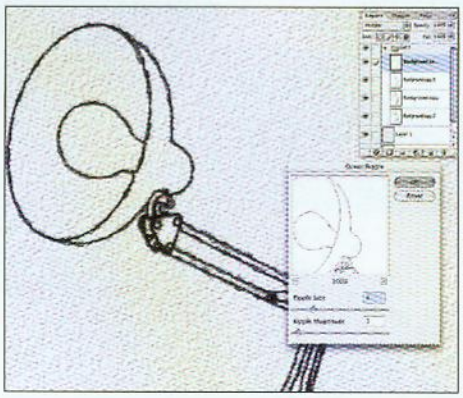
Sometimes, using extreme radiosity settings can result in a 'painterly' look to renders. This is worth experimenting with. If you combine hand-painted texture maps with over-the-top radiosity rendering then you can get some very interesting natural media-like results, or at least provide more natural-looking images for further post-processing.

25. lighting effects

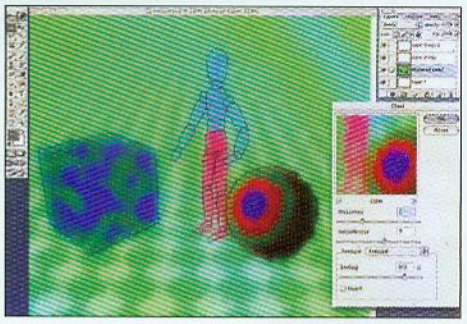
Photoshop's Lighting Effects filter is often used to achieve natural media effects, particularly paint. The technique applies a relief and illumination to your canvas using an alpha channel to cause subtle bumping and specular highlights on your 'paint', making it look lumpy and shiny. A 3D program can be used in exactly the same way, except with an order of magnitude more control. Load up your flat artwork into the colour channel or a material and apply it to a plane facing the camera. Add a light (or many) and then adjust the specular component of the material until it looks like acrylic, oil or whatever. To make the relief, add the same alpha channel image you would have used in *Photoshop*'s Lighting Effects into the material's bump channel. Set the bump depth and render. Adding a second bump map, of a canvas texture, provides the finished result of oil on canvas. Ca-p



Thicken an outline in *Photoshop* by blurring it and darkening it. You can increase the thickness by substantial amounts, but be prepared to lose some detail in the process.



This is a 3D render of a lamp model using an outline rendering mode. The outline has then been duplicated and distorted to give the sketchy style.



Using Photoshop's Glass filter, you can distort the outline of an object and then create washy glass effects.

Piranesi gives you natural media rendering facilities as part of its general feature set. If you want a no-fuss solution, this is the way to go.

Digital comic art...

Join us as we create a dramatic *2000AD* comic strip in *Photoshop*...

To create the digital comic art on these pages, professional illustrator Frazer Irving started by scanning in line art and adding colour beneath it. "I've tried to blend the line art and colour organically while still retaining that natural media effect," he explains. "I have no interest in creating smooth 3D figures or photo-realistic landscapes; I see an inherent quality within paint/pen strokes and it's these I've tried to emulate. In many ways, I'm trying to kick back at the glut of shiny *Bryce* and *Poser* figures polluting the world of illustration."

In the tutorial which follows, Frazer takes us through the simple process he's devised for his most recent digital comic art work in *2000AD*. The final illustration was intended to be monochromatic with colour-coded scenes, and the brief was to make it look like rough pencil drawings with colour loosely painted on, to echo the brutal nature of the story.

This is the first fully digital work which Frazer has done using his dual-processor G4 and a big A4 Wacom tablet. ›

Expertise provided by Frazer Irving, a professional illustrator who works primarily on *2000AD*. You can view more examples of his work, which ranges from dark Lovecraftian horror to retina-searing psychedelia, at **[w]** www.frazerirving.com and **[w]** www.2000adonline.com. Frazer can be contacted at **[e]** art@frazerirving.com

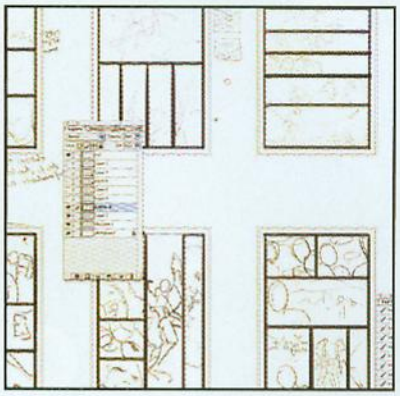
Part 1: Initial steps

Create a set of documents and start drawing in *Photoshop*...

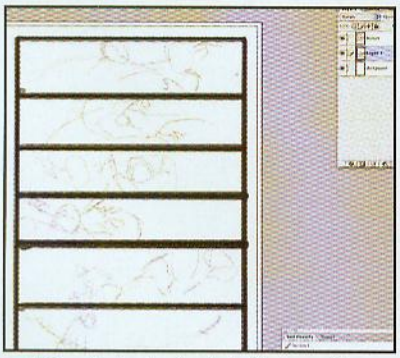
Alternative styles

Other computer-using comics artists, not surprisingly, have their own approaches. Some, such as Dave Gibbons, prefer to produce the basic line art using traditional pen-and-paper techniques, then scan this in and add colour and other effects on the computer. To preserve the crispness of the line art, it needs to be scanned at quite a high resolution, say 600dpi or more.

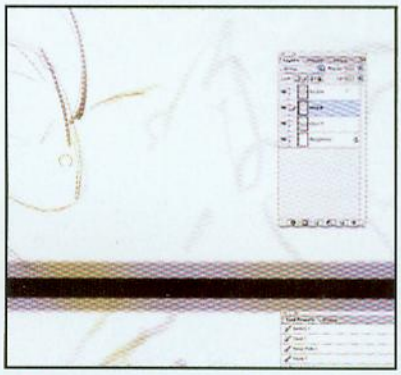
1 First, I lay out the action using a template of eight or ten pages on one document. The document is A4 in size for ease of printing, and 600dpi so that I can get some detail in there if I need to. The first stage, seen here, is to allocate panels to the directions in the script.



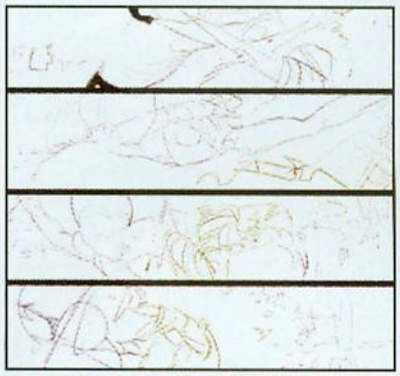
2 The next stage is to create a new layer and pencil in very rough placements of figures and action. I can use multiple layers here to experiment with different layouts, compositions and background ideas until I find something that suits me.



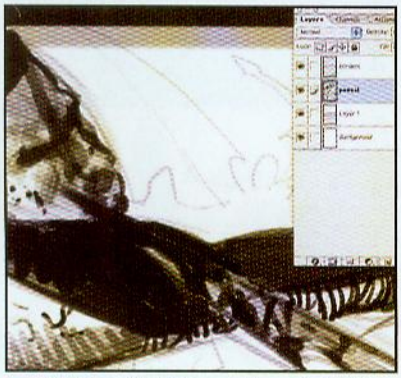
3 Once the basic action is decided upon, the document is flattened and each page is copied into its own document. For this strip, it's set at print size but at a higher resolution (500dpi) so that I can add in detail without too much hassle. The pasted layer from the thumbnail is lowered in opacity so it interferes less with the next stage of pencilling.



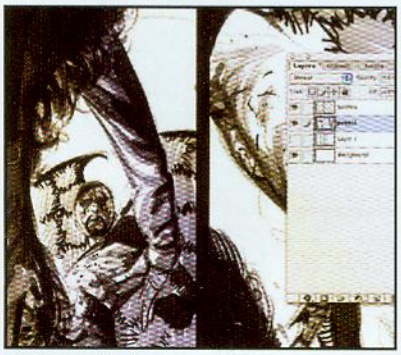
4 I create a new layer to act as the final pencil art. I then select a brush from my tool presets which is designed to simulate my pencil size of choice, and I begin to draw a tighter version of the action over the original sketch.



5 The result of this is a layer which has a clearer defined set of outlines for the action, with key ideas being defined, such as the simplicity of the background contrasting with the detail of the foreground figures.

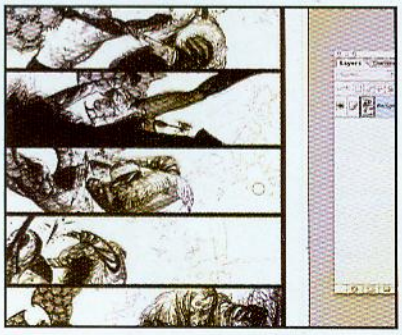


6 Next, I work into the pencil layer, altering the size of the brush to create broader strokes and smaller lines where needed. Keyboard shortcuts are essential here, because I change size on the fly and I need to be able to do so almost unconsciously.



7 One of the limitations of drawing in *Photoshop* is the lack of flexibility with regard to the position of the paper. Unlike in *Painter*, where rotating the canvas at will is a major feature, in *Photoshop* I have to rely on the rotating of the image in increments of 90 degrees using actions set to hot keys. This is clumsy, but it still allows me to draw scenes at odd angles such as this one.

8 Zooming in compensates for the inability to sit with my nose touching the paper. Here, I can zoom in and shrink the brush so that the tiniest of details can be executed with ease.



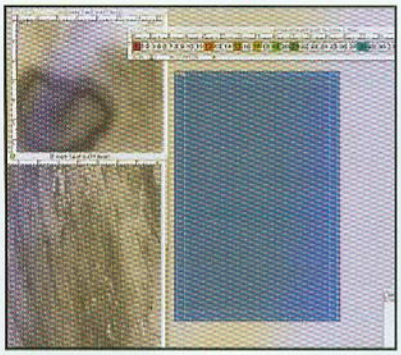
9 This stage is now complete, with the pencil art all finished. The next part is to flatten this document and then use the Burn tool to darken any areas which lack a bit of punch. Note the open spaces on the page. The plan here was to create a depth between the main action and the background action. By drawing detail on the main figures and leaving the paint to create the rest, we effectively isolate what we need to see.

Part 2: Introducing colour

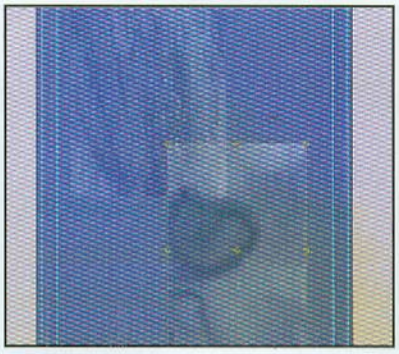
Choose a background wash and build up the layers...

Love those layers

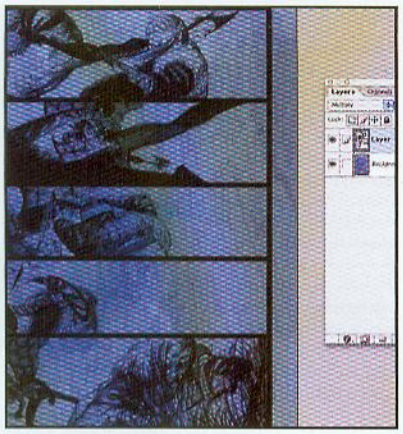
If you simply want to replicate the look of 1960s (and earlier) comic art, there's nothing simpler than painting areas of flat colour inside a 'holding line' – but it's far more effective to keep the colour and the linework on separate layers, then bring the linework to the top and only then flatten the image. For that even more authentic retro look, artist Simon Fraser combines 600dpi linework with a less defined, 150dpi colour layer.



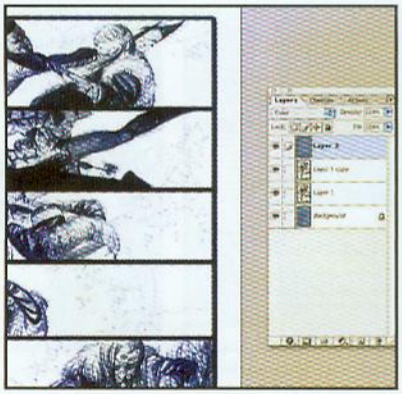
1 First, open another pre-sized document. This is again set at print size and 500dpi, this time in RGB. I select the appropriate colour from a colour guide, showing which colours correspond to which scenes, and fill the document. Then I open two scans of painted colour textures, saved as greyscale images.



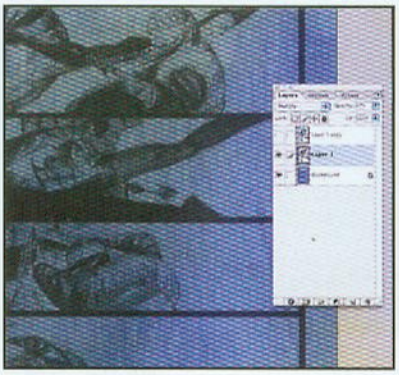
2 These two textures are copied and pasted into the main document and set to Soft Light to allow the respective qualities to show through. This is my effort to simulate the effect of real paintings, where a background wash is applied to create a general midtone. It also suggests a mild texture to break up any dull flat areas.



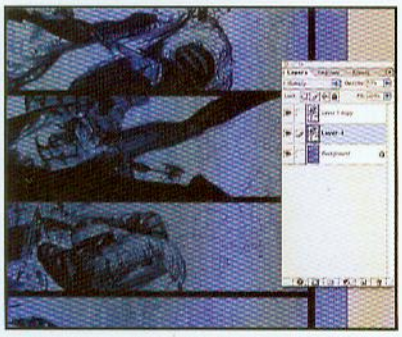
3 Once the painted colour paper has been set, I paste the pencil drawing into it. This is then set to Multiply to allow the textures to show through.



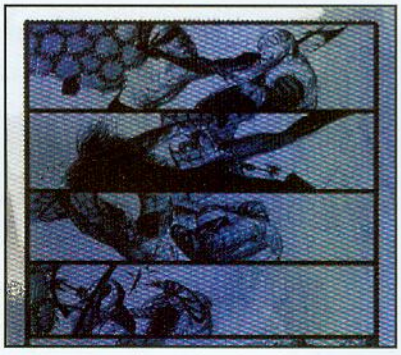
4 The pencil layer is duplicated and set to Normal. Then a new layer is created and filled with the foreground colour. This layer is set to Colour to give the lines more harmony with the background.



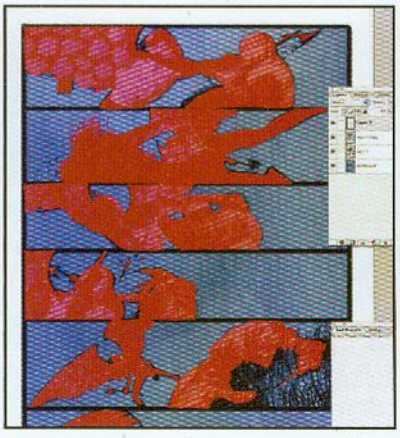
5 The new layer and the duplicate pencil layer are merged. Then I lower the opacity of the original pencil layer to reduce its impact on the new blue pencil layer. We can now see how the greys are very different without the new blue.



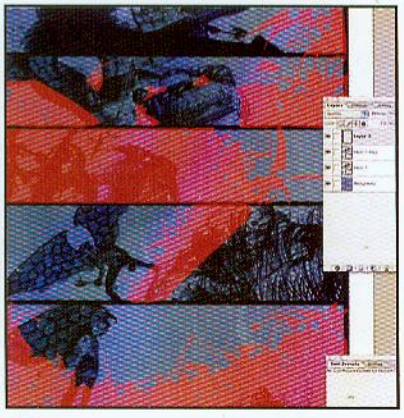
6 The new layer is set to Multiply. Together these layers create a warmer, more harmonious line art. It may seem dark here, but once the light is added, the subtle variations in the hues become apparent. This provides me with the dynamic range of tones in the linework that traditional media provide naturally.



7 Next, I use the Wand to select the gutter around the panels. A new layer is created and I select a new brush, labelled 'cloud'. I then begin to paint in the white around the main image. Again, this is to simulate traditional methods. Whereas it would be easier to simply *fill* the area with white, this method has more in common with the techniques I'm attempting to mimic.



8 I need to separate the three main areas of focus in this page, which I do by using masks. First up is the mask of the main figures, which can be pretty rough thanks to the abundance of thick outlines.



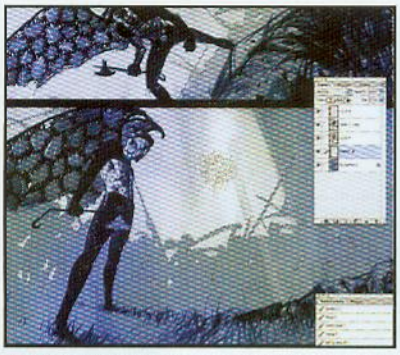
9 Next I have to paint in a mask for the background shapes. This is meant to suggest a crowd at war and create a sense of chaos, so I use the Brush tool to paint shadowed bodies of humans and winged people, mixed with many spears.

Part 3: Painting light areas

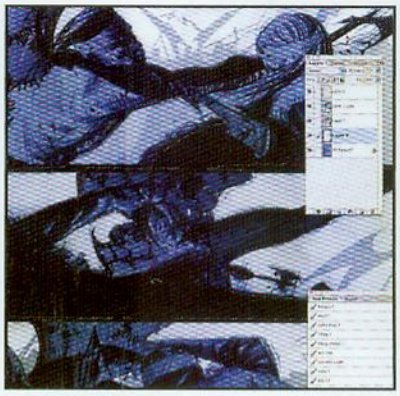
Use white to add atmospheric light and fine details...

Filmic effects

Artist Mark Harrison goes even further than most, combining CGI and *Bryce* backgrounds, 3D and *Poser* models with painted art. He readily admits that many of the effects he favours "are based on traditional film effects work, hence the filmic look." He even renders *Bryce* starships against green or blue, to allow for easy extraction from the render in *Photoshop's* colour range just as in bluescreen work for film. For more on Mark's and other comics artists' techniques, grab yourself a copy of *Computer Arts* issue 87 – you can order one through our back issues service on page 74.

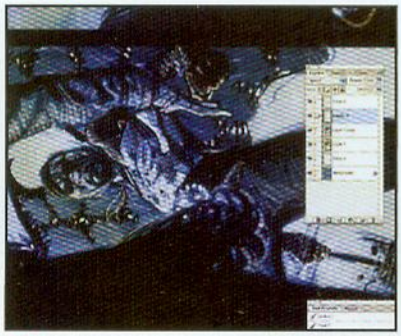


1 Once the masks are done, I embark on the final stretch, which is the painting of light. I create a new layer on which to paint the background, and paint in some very light, broad strokes in the direction in which the rain is supposed to be falling. Then I select the background figures mask and add white to the sky to bring out the figures.

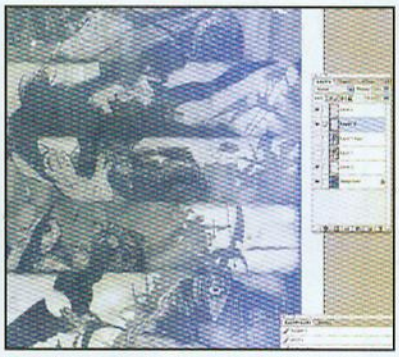


2 I select the main figures mask and delete the white from the background layer. Rough edges aren't such a problem at this stage, because I can always paint into the image again to cover up these parts.

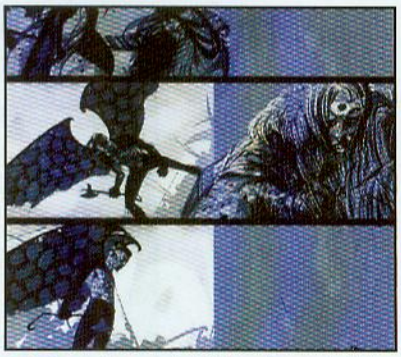
3 Next, I start to paint in the whites behind the figures. By painting behind the lines, I soften them up and allow the blue to show through, transforming the black lines to blue. The areas I don't paint remain darker.



4 I create a new layer on top and begin painting white onto this. This allows me to add highlights onto the solid dark areas and to use lines to create textures with light. Painting white on top of the linework also creates a variation in the hue – in this case, a slight purple/grey is introduced. I like this because it adds some character to the monotony of monochrome.



5 Here, we see the allocation of white on the image. Sometimes I see new ways to render certain elements of the pages by experimenting with layer order, and so on. Here I noticed that the subtle pencil lines of the background shapes detracted from the effect I wanted, so I decided to remove them.



6 The main layers of white have been painted in. We can see the two separate layers along with the line art. At this point, I wasn't sure if I needed the same sort of background in the final panel as I had in the rest of the page, and layers allowed me to explore this variation. In the end, I decided to stay with the original plan.

7 Using a different brush, I can draw white onto the image much like I would with a pencil. Here I've drawn grass twice: once in the pencil layer and once with the white, allowing the background texture to serve as the midtone. All I really need is a suggestion of grass with the black and white. The top layer also enables me to add a further level of depth to the image by drawing grass passing in front of solid elements, such as the foot shown here.

8 As I did with the pencil, I can zoom in and add detail with the white. Here, I'm painting over some pencil lines to soften them further, and to create some variation in the colour by creating grey.

9 The final stage is to add the rain. I create a new layer and then use the Marquee tool to select the panels individually. Then all I need to do is drag the brush swiftly across the image in the direction I want the rain to fall. I save the image in this format, and then prepare it for print. This entails removing all masks from channels, converting the image to CMYK, reducing the resolution to 300dpi (print resolution) and saving as a TIFF. I also create a low-res version in RGB for emailing previews. This is all then sent by FTP to the server, and text is added in *Quark* by *2000AD's* letterers (this strip was lettered by the marvellous Ellie De Ville). ca-p

Take to the tablets

When you want to get creative, it's helpful to have the versatility of traditional art tools. Enter the graphics tablets!

Many digital artists long for a graphics tablet but balk at the cost. How can you justify hundreds of pounds on an item that basically has the same function as your common garden mouse? Well, that may be true if you're talking about the most basic function: moving your cursor around the screen to draw lines and navigate. And if that's all you need, you can pick up a basic graphics tablet, such as Wacom's Graphire2 A6, for not much more than the cost of a good mouse.

However, comparing a professional graphics tablet to a mouse is like comparing a large-board marker pen to any fine-art tool. A pressure-sensitive tablet gives you complete control over any specialist pen or brush you choose, so using one is just like drawing with real pencils, chalks or brushes. You can often buy a specialist stylus afterwards as well, replicating tools such as airbrush, traditional pen, ink pen and stroke pen for example, giving you even more creative options to reproduce the effects of different media.

The graphics tablet market is dominated by Wacom, which offers a wide range of devices. Here we've tested a representative sample from the compact A5 Intuos2 to the all-singing Cintiq 15x with integral TFT display.

WACOM INTUOS2 A5 (PLATINUM EDITION)

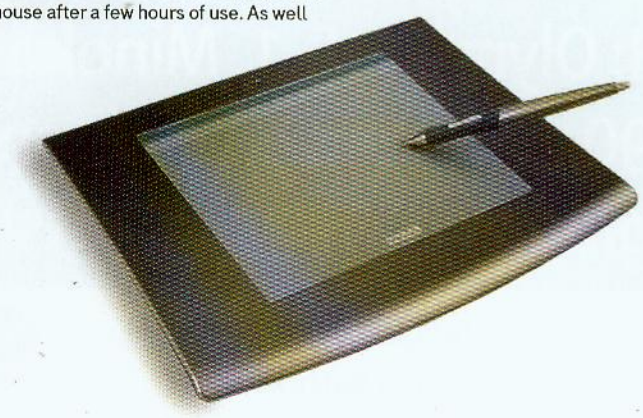
Price **£300 (inc VAT)** Company **Wacom** Website **www.wacom.com**
Product information **Computers Unlimited** Telephone **020 8353 9548**

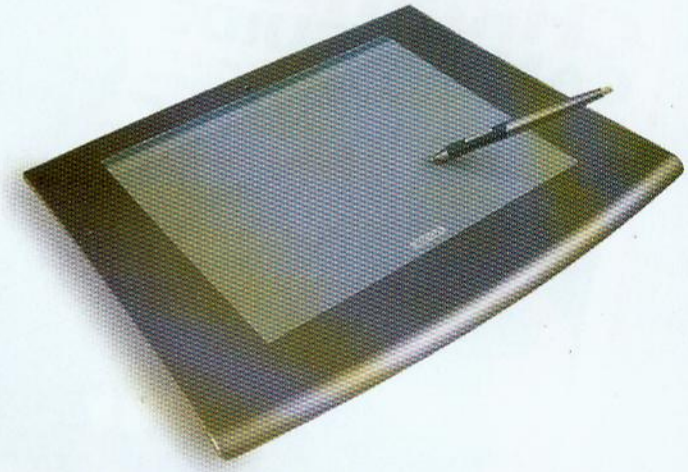
The Wacom Intuos2 A5 is the smallest and cheapest tablet on test this month. Its 16.2 x 20.3cm usable area makes it ideal for those with a limited workspace or only occasional need for a tablet. The basic kit comprises the tablet, standard grip pen and 2D mouse, and comes bundled with Corel *Painter Classic* to get you started.

The tablet is fully programmable, but the default settings make it easy to open, close, copy, paste and save with a tap of your pen, whatever the application you're using. The work area, although small, is a great improvement over using a mouse. It allows control over quite fine detail, with the added bonus of being able to apply pressure-sensitive effects to the tools you're using, thereby varying line thickness as you go. The grip pens were overhauled a couple of years ago and are comfortable in the hand, although you'll notice the difference between this and a mouse after a few hours of use. As well as a pressure-sensitive tip and an eraser on the other end, the pen also features a double-sided switch that can be programmed to execute mouse-clicks or for any other use you see fit. The kit also includes the 2D mouse, which is useful for navigation when starting with a tablet or simply if you have to do some general work, since tablets do take a little getting used to. As a complete bundle, this tablet supplies everything you'll need to get started, although it will prove a little small for more ambitious artists.

Perfect for artists on the road or short of space, with all the flexibility of traditional art tools.

VERDICT **3.5/5**





WACOM INTUOS2 A4 (PLATINUM EDITION)

Price **£458 (inc VAT)** Company **Wacom** Website **www.wacom.com**
Product information **Computers Unlimited** Telephone **020 8353 9548**

The Intuos2 A4 features the same basic layout as the A5 version but with a larger 24 x 30.4cm work area to suit everyday use in the creative field. The larger work area gives you more control for intricate work, and the 4D mouse that's included is a fantastic tool when it comes to working with 3D models, giving you 360-degree control with a self-centring finger-wheel with x/y positioning.

The new Intuos2 tablet models have many improved features, including up to eight optional input pen devices. One of these is the digital airbrush, which is pressure- and tilt-sensitive, bringing it close to the real thing. The airbrush's finger wheel enables you to fine-tune the effect of the brush in use, with 1,024 levels of fine graduation, so it should suit most skill levels.

Like the A5, the Intuos2 A4 is fully programmable, so you can customise it for all your applications. This makes a real difference to workflow as you switch between 2D image applications (such as *Photoshop*) and 3D software, where you need that little extra control to work in an extra plane. We tested the 4D mouse with *Cinema 4D* and *Body Paint*, and found that it really simplifies navigation around your workspace, allowing you to easily shift objects and paint your model. This tablet is fantastic for everyday use anywhere in the creative field.

VERDICT **4/5**

WACOM INTUOS2 A4 OVERSIZE (DTP CONFIGURATION)

Price **£477 (inc VAT)** Company **Wacom** Website **www.wacom.com**
Product information **Computers Unlimited** Telephone **020 8353 9548**

The Intuos2 A4 Oversize has become an industry standard that's widely used by professionals in the 3D and illustration world, where it's useful for long sweeping arm movements simply not possible with mouse systems. The 30 x 30cm work area offers that precious extra space when laying out work or working on large projects. Like its smaller siblings, the A4 Oversize is fully programmable, enabling you to quickly set up shortcuts for frequently-used functions and applications.

The bundle includes Nik Multimedia's Pen tools and a set of Wacom's own *Photoshop* plug-ins. This tablet is firmly aimed at professional users and includes a transparent overlay, which becomes an indispensable tool for drafting and other tracing needs. The tablet is capable of 1,024 pressure levels, so you can control elements within your image perfectly with the supplied grip pen and 4D mouse.

The A4 Oversize is perfect for most creative uses, and the extra length is handy for working in 3D environments. It comes bundled with Corel *Painter Classic* and includes the same support for a variety of pressure-sensitive pens and subsequent tool additions.

VERDICT **4/5**

WACOM INTUOS2 A3 (DTP CONFIGURATION)

Price **£705 (inc VAT)** Company **Wacom** Website **www.wacom.com**
Product information **Computers Unlimited** Telephone **020 8353 9548**

At A3 size, this tablet is a monster with a 31.6 x 45.7cm work area. It should, therefore, be big enough for even the most advanced user, as long as they have enough space to house the thing. The tablet is designed for high-end graphics workstations, so unless you have a 21-inch monitor at the very least, you'll be wasting the potential of owning a tablet of this size. Like the A4 Oversize, the A3 comes bundled with Nik Multimedia's Pen tools and boasts a transparent overlay for tracing. The work area also includes 'quick point navigation', which becomes extremely useful when using *Photoshop* or *Quark*. Like the other tablets here, it's fully programmable, with shortcuts just a quick pen tap away at the top of the work area. The package includes the standard grip pen, 4D mouse and Corel *Painter Classic* software.

A tablet this size does feel like more of a creative tool, enabling you to draw long sweeping lines and experience a freedom with your drawings and artwork that makes it feel as though you're working on a canvas. An excellent choice for the most ambitious professionals working on large-scale projects — and using large monitors.

VERDICT **4.5/5**

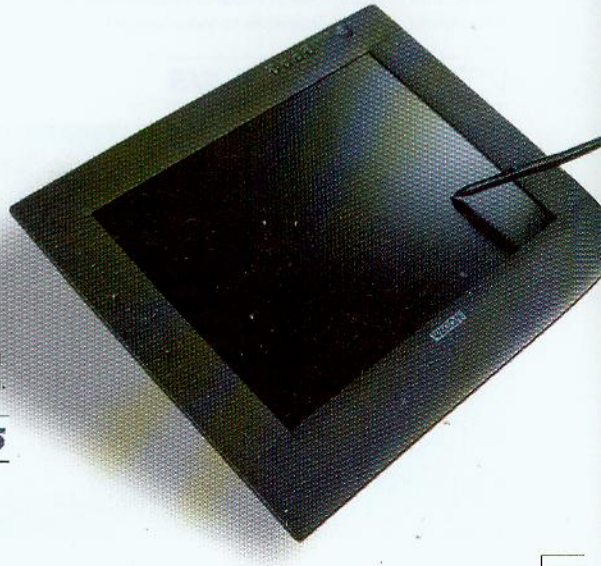
WACOM CINTIQ 15X

Price **£1,527 (inc VAT)** Company **Wacom** Website **www.wacom.com**
Product information **Computers Unlimited** Telephone **020 8353 9548**

Unlike other graphics tablets, the Cintiq 15x enables you to work directly onto your image — it sports a TFT screen on which you work, just as if you were drawing on a sheet of paper. In use, this feels a lot more natural than the way we've become accustomed to working: moving a mouse or stylus on a tabletop while looking elsewhere. With the image directly under your pen, touching up photographs and other images can be done extremely accurately. The Cintiq's physical angle can be adjusted to suit your working position, so that using it is just like using a drawing board. It feels so much more natural that it can only help to increase your productivity.

Like the other tablets in our test, the Cintiq is fully programmable, so you can set up your favourite shortcuts. With a work area similar to the A4's, there's enough room to let your creative thoughts flow. Being able to see the results of your strokes right under the pen does feel much closer to working with pen and paper, but the hefty price of this tablet will put it out of many people's reach. Still, if you can afford it, the Cintiq is without question the closest thing to using real media.

VERDICT **5/5**



Natural media plug-ins

Pen and paint effects don't normally spring to mind when thinking of *Photoshop* plug-ins, but natural *Photoshop* effects do exist...

Most people use plug-ins for slight image adjustment. In fact, many plug-ins are seen as a bit of a gimmick, producing abstractions of image and colour and leaving you wondering whether there's actually a practical use for them. Natural media plug-ins raise this question more often than most, because their function isn't actually image quality improvement but adding extra effects to the picture you're working on. Here, we look at a few of the more unusual plug-ins.

HALFTONE

Company **Richard Rosenman**
Website **www.richardrosenman.com** Price: **free**

This fantastic free plug-in enables you to create colour halftones. The interface gives you simple control over dot size and a few expansions over the internal *Photoshop* version, such as changing the background colour and control over the RGB. Halftone is a filter that's good fun to use and produces interesting results when enlarging images.

VERDICT **4/5**

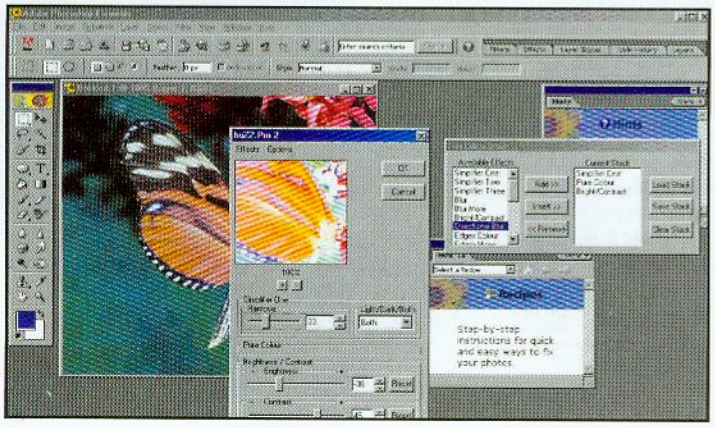
You could recreate pointillist works, like those of artist Georges Seurat, with *Halftone*, a plug-in that enables you to make colour halftone images.

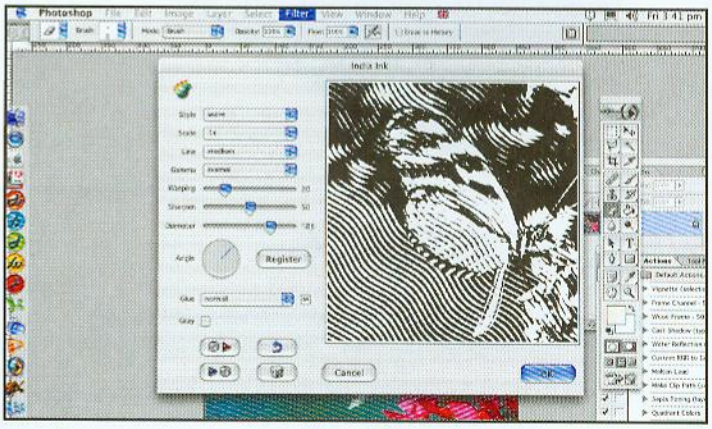
BUZZ.PRO 2.0

Company **fo2pix** Website **www.fo2pix.com** Price **£105.74**

Buzz has been around for a few years, enabling you to convert your photographs and images into realistic painting effects. Buzz.Pro 2.0 enables you to control the simplification of your images, reducing colour and detail to make your picture look like a watercolour or vibrant digital image. Great fun, and excellent for converting your photographs to watercolour-style images.

VERDICT **4/5**





INDIA INK

Company **Flaming Pear** Website **www.flamingpear.com** Price **$15**

A slightly different take on the popular halftone plug-ins, India Ink gives you greater scope over the breakdown of colour, size and distortion of the final effect. The interface gives you massive control over the effects you apply, whether you're converting an image to black and white or using colour effects. An excellent plug-in for creating thumbnail illustrations or abstract imagery quickly.

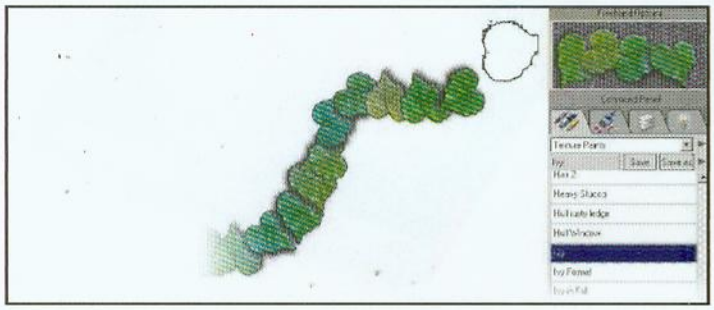
VERDICT **4/5**

DEEP PAINT 1.1

Company **Right Hemisphere** Website **www.deeppaint.com** Price **$249**

Available as a standalone product or as a *Photoshop* plug-in, Deep Paint is probably one of the most powerful natural media plug-ins on the market. Used in combination with a tablet, it offers a full selection of useful artist brushes with similar properties to the real things. This filter is also fully supportive of the Wacom 4D mouse and airbrush. If you want to paint on your computer, this is a great choice.

VERDICT **5/5**

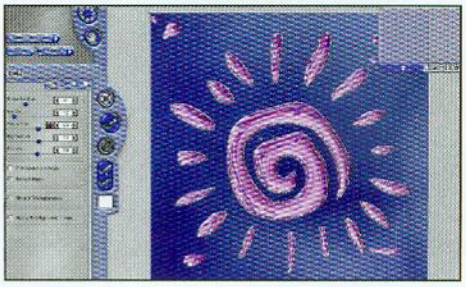


ETCH TONE

Company **Andromeda** Website **www.andromeda.com** Price **$89**

Looking for a plug-in to create old world etch effects? You've come to the right place. This filter replicates a continuous tone screen, thereby softening the harshness of solid black and white lines so you get the feel of a tradition steel etched image. Depending on the effect you're after, you can either overlay or blend the etch to your image.

VERDICT **3/5**



GEL

Company **Auto FX** Website **www.autofx.com** Price **$99**

A fun plug-in to create an assortment of gel effects. Although it sounds pretty limited, Gel is based on Auto FX's long-running Dreamsuite engine, which gives you almost endless effects possibilities. There are five visual effects here: Crystal Painter, Gel, Gel Mixer, Gel Painter and Liquid Crystal. If used with a little creativity, all of these produce excellent results. Very much a fun plug-in, but you could probably find some practical uses for it out there.

VERDICT **5/5**

FLOOD

Company **Flaming Pear** Website **www.flamingpear.com** Price **$20**

The uses and possibilities of this plug-in are endless when it comes to adding realistic looking water to your images. Flood gives you control over waves, ripples and perspective so you can create your ideal flooded scene. Although you can use this filter for drowning friends, animals and cities alike, the potential for practical use is excellent. It's fiddly making a selection to apply it, but as a specialist plug-in it's hard to fault for the control you have over elements within a scene.

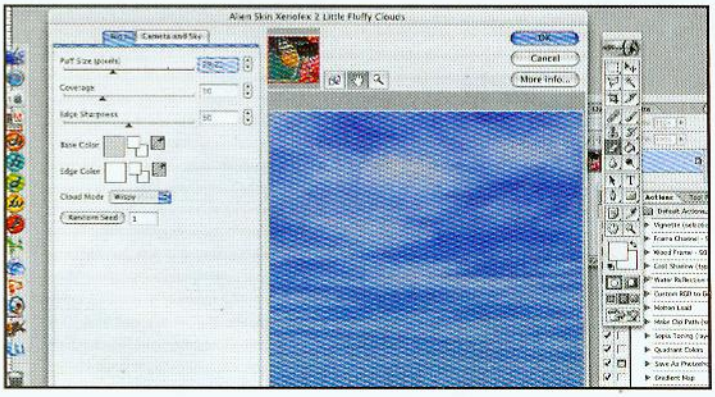
VERDICT **5/5**

XENOFEX 2

Company **Alien Skin** Website **www.alienskin.com** Price **£129**

This set of 14 filters enables you to create everything from crumpled paper to electric sparks. It may sound a bit tacky, but it produces these effects to spectacular effect. And the end results are far beyond what you could hope to create manually in a reasonable amount of time. Each filter is controlled through a series of sliders and picker menus for colour, allowing complete flexibility over the results. The clouds filter, in particular, is excellent for producing results that would look impressive in any landscape shots. And if you were to combine these with a good lighting filter, the effects would be spectacular.

VERDICT **4/5**



BOOK REVIEWS

THE PAINTER 7 WOW! BOOK

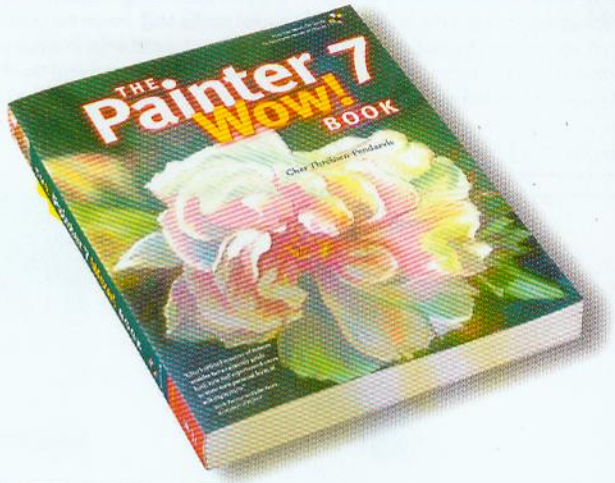
Author **Cher Threinen-Pendarvis** Publisher **Peachpit Press**
Price **£37.99** ISBN **0-201-77362-7** Web **www.peachpit.com**

Painter 7 Wow! is an excellent title, packed full of techniques used by working digital artists. The sheer number of examples means that tutorials are relatively brief, making this one for the intermediate to advanced *Painter* user.

Each chapter begins with a general exploration of a particular action – for example, making selections and masks. These are followed by tutorials based on the work of practising artists. The tutorials have four to six stages so they're far from step-by-step, concentrating instead on artistic technique.

Although the early chapters purport to deal with '*Painter* basics', they're far from basic in their approach, assuming the reader has a good grasp of the basics already. Later sections move steadily away from *Painter*'s core functionality in the direction of using the program to create elements for video and the Web.

Painter 7 Wow! illuminates a vast array of *Painter* techniques and provides an excellent resource for users of the package. However, you will need a good level of competence to get the most out of this title.



VERDICT **4.5**/5

DIGITAL CHARACTER DESIGN AND PAINTING

Author **Don Seegmiller** ISBN **1-58450-232-0** Price **£33.50**
Publisher **Charles River Media** Web **www.charlesriver.com**

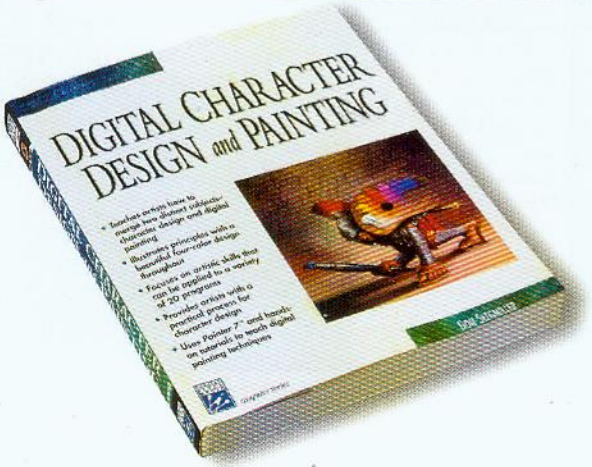
This is a great book, although its audience may be limited. The author's ambition is to help those who "feel the need to give the creatures and characters of their imagination a more solid form". Relevant to all competence levels, the book is a mixture of general artistic advice and tutorial, complemented and brought up to date by using Corel's digital painting package.

The three sections of the book deal, loosely, with inspiration, artistic principles and *Painter*-specific techniques. Each stage is clearly developed and well explained, making it suitable reading for beginners and intermediate students wishing to brush up on character design and the principles of drawing.

The final section has a series of in-depth tutorials, each developing a digital character painting. These are designed to give you the tools to create your own work rather than simply enabling you to replicate the author's results.

This is a thoughtful book, well worth considering for anyone working in character design or wanting to develop their *Painter* techniques in that direction.

VERDICT **4**/5



PAINTER 8 CREATIVITY: DIGITAL ARTIST'S HANDBOOK

Author **Jeremy Sutton** Publisher **Focal Press** Price **£27.08**
ISBN **0-240-80511-9** Web **www.focalpress.com**

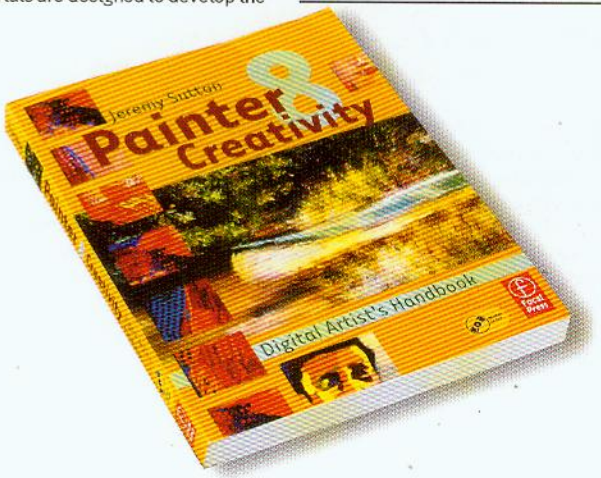
Jeremy Sutton has produced a clear and well-mannered introduction to *Painter 8*. Each section introduces new program features and uses tutorials to help you build up confidence. This book would be suitable for artists of any level wishing to add an understanding of *Painter* to their tool set.

Each chapter contains a clear introduction to the set-up and use of *Painter*'s various modules, from brushes and their definition to animating transitions for video. The focus is on portraiture, with or without photo guides, and this gives the book cohesion.

Tutorials are designed to develop the student's understanding of artistic techniques, such as colour usage, while also introducing *Painter*-specific tools and techniques. The splitting of tutorial text and images into separate blocks may not suit everyone.

Painter 8 Creativity has a classroom feel, which makes getting to grips with *Painter* less intimidating than it might otherwise be. This isn't a compendious title, but it provides a good grounding in the use of Corel's paint app and maintains a friendly, readable pace.

VERDICT **4**/5



DIGITAL TEXTURING & PAINTING

Author **Owen Demers** Publisher **New Riders** Price **£42.99**
ISBN **0-7357-0918-1** Web **www.newriders.com**

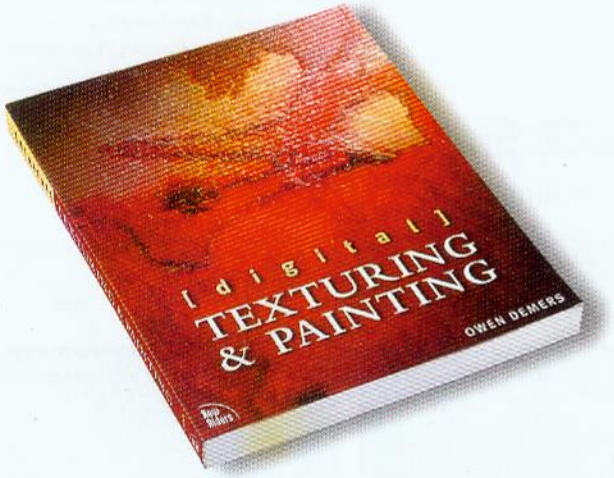
This is a good reference text for artists working on texturing for 3D in film, television and the Web. *Digital Texturing & Painting* is an all-encompassing tour of the fine art of texture creation from colour theory to practical application. A great read for anyone lacking formal artistic training.

Aimed squarely at those with an interest in 3D, this title starts by encouraging the development of an artistic eye for details, moves on to colour theory and, after examining the works of the masters, ends with a practical texturing project.

There's a vaguely academic tone to this title which works well in the first half of the book, where the author is mainly concerned with theory and appreciation. The tutorials that follow cover the essential elements of creating and applying texture maps, manipulating UVs and generating procedural textures.

The central purpose of this book is to help the reader develop an 'eye' for textures rather than following step-by-step tutorials. This is an ideal primer for anyone new to 3D who is baffled by how to go about generating realistic digital textures.

VERDICT **3.5**/5



PHOTOSHOP, PAINTER & ILLUSTRATOR SIDE-BY-SIDE

Author **Wendy Crumpler** Publisher **Sybex** Price: **£36.99**
ISBN **0-7821-2923-4** Web **www.sybex.com**

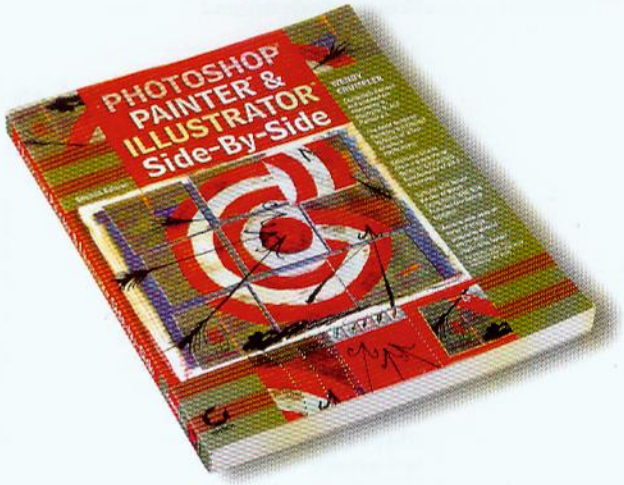
It's worthwhile considering this as a reference text if you're using a combination of *Photoshop*, *Painter* and *Illustrator*. However, the book is in need of an update to take account of new versions of each package and is not recommended for beginners.

It's split into three sections: Basics, Particulars and Artists. The opening section deals with differences between the interfaces of the three applications and introduces the colour coding and numbering system which ties together the rest of the information. The final section contains a gallery of works created using two or more packages with brief notes from the artists.

The 'Particulars' section contains the meat of the book, considering the applications by common functionality such as layers, colour, paths and brushes. Side-by-side tables list each aspect of the module under consideration and give page links to the more in-depth, illustrated discussions that follow.

Reading this book from cover to cover would make anyone's head spin, but as a source of reference for someone familiar with one package, this could be a real time-saver.

VERDICT **3**/5



SECRETS OF AWARD-WINNING DIGITAL ARTISTS

Authors **Jeremy Sutton & Daryl Wise** Publisher **Wiley**
Price **£39.99** ISBN **0-7645-3691-5** Web **www.wiley.com**

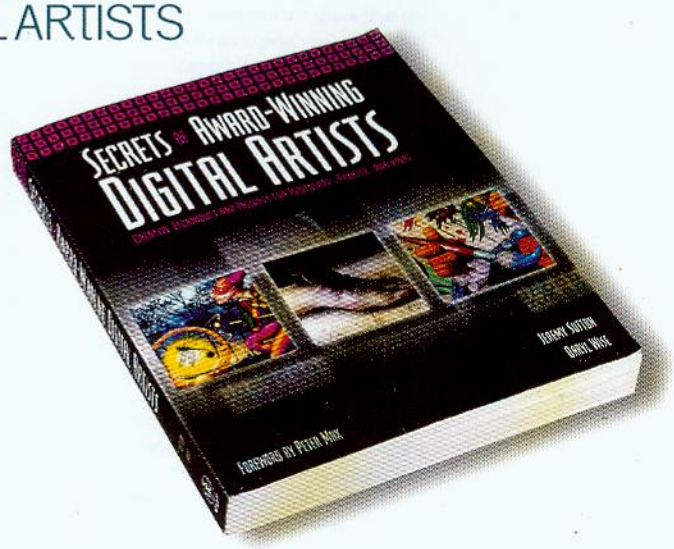
Pulling together the work, techniques and observations of nearly 50 top digital artists, this title contains a wealth of inspiration. Although the tutorial element of the text is fairly general, the artists' advice is a great resource for anyone wondering how to get the most out of a project.

The book is split into two sections: the first contemplates more illustrative pieces, while the images in the second half all "have a basis in photography". In each of the 47 chapters, digital artists first introduce themselves and their work, before delving into the specifics of technique and application.

Complementing the practical tips and hardware listings are sections dealing with the creative process and the ideas which inform the image under consideration. Each artist also explains the decision to go digital.

This book is a rare opportunity to compare the styles, motivations and techniques of a diverse range of artists. While not every image holds up under scrutiny, this in itself contains valuable lessons for anyone involved in illustration or design.

VERDICT **4.5**/5



COMPUTER arts projects INTERACTIVE

On the CD

Your guide to the free extras given away on this issue's cover disc...

FULL PLUG-IN

buZZ Simplifier 1.0

WORTH £35

Remove unwanted detail from your images without blurring, using buZZ Simplifier, a full plug-in worth £35!

You've seen it happen dozens of times: a picture that seemed like a perfect composition comes out looking cluttered and busy. The fact is, the human eye is far more selective than the camera lens, and photographs often capture far more detail than you want. You can get stuck in with masks and blur or fade parts of the image... Or you can try another approach. buZZ Simplifier is a unique filter specifically designed to remove unwanted detail from an image without blurring, distortion, or loss of focus, colour and edges.

Three effects are included. Simplifier One works on a large scale over the whole image. Simplifier Two enables you to restore or adjust finer detail. Simplifier Three automatically analyses the objects in an image and then magically removes detail across three regions of interest (Inner, Middle and Outer).

buZZ Simplifier uses a system called the Stack, similar in concept to *Photoshop's* Layer Styles, which enables you to experiment with effects in any order and any combination, and preview the results in the preview pane. You can save Stacks to use on other images or even email to other people. With the other buZZ plug-ins, plus *PhotoArtMaster* (also on the CD), it's a powerful toolkit for creating dazzling artwork!

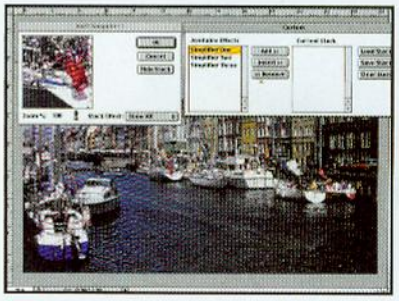
Getting started with buZZ Simplifier 1.0

Eliminate the clutter without blurring or blending...

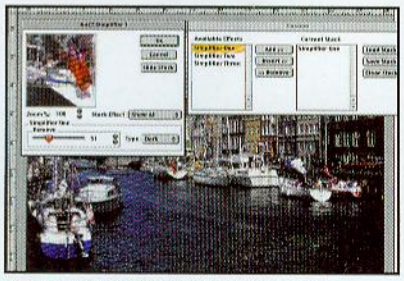
Installing and upgrading

To install this plug-in, simply click on the Install button on the CD interface and select your *Photoshop* Plug-Ins folder as the location to install to. (The plug-in also works with other host software — for details, and more information on using the plug-in, download the complete PDF manual available free from **[w]** www.fo2pix.com under 'Free Downloads'.) To unlock the full version of the software, you'll need to email **[e]** support@fo2pix.com with the Subject 'Registration request from Computer Arts' in order to obtain the Full Licence key.

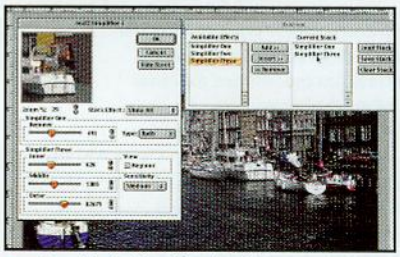
Want to upgrade to the latest version of any of the buZZ plug-in range? As a reader of *Computer Arts Projects*, you can claim a fantastic 25 per cent off the normal prices! For details, visit **[w]** www.fo2pix.com/futurepub/buzz (you can click on the link from the CD interface: simply select 'buZZ Simplifier 1.0' from the drop-down list of the CD contents, then click on the 'Upgrade Information' button at the bottom left of the screen).



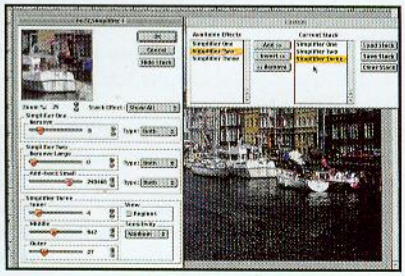
1 Open your chosen image and select buZZ Simplifier (in *Photoshop*, it appears in the Filter menu). The window on the left shows a preview of the image. The window on the right shows the Stack and the available effects. To begin, click on Simplifier One in the list, then click Add.



2 Use the slider that appears beneath the preview pane to adjust the simplification effect. The numerical display reflects this on a logarithmic scale, and you can fine-tune the effect by clicking the + and – buttons next to this. Experiment with the Light/Dark/Both box to affect different aspects of the image.



3 To add a further effect, highlight it and add it to the Stack as before. Its controls now also appear beneath the Preview Pane. You can add more effects too – at the bottom of the Stack by clicking on Add, at the top of the Stack by clicking on Insert, or above any current effect by clicking on that effect in the Current Stack window and *then* clicking Insert.



4 Changing the order of effects changes the result. To experiment with this, click on an effect in the Current Stack window and drag it up or down the list. To remove an effect, highlight it and click Remove; to remove them all, click Clear Stack. To save a Stack to apply elsewhere, click on Save Stack. To finish, simply click OK.

DEMOS

Plug-ins, Layer Styles and Brushes

Buzz Lite 2.0 (Dual)
Six effects, configurable using the same Stack system as Simplifier. Also includes three pre-set Stacks: Oil, Watercolour and Colour Patches. Fully functional but limited to 30 uses.

Buzz PiX 1.0 (Dual)
Ten effects, with two pre-set Stacks: Watercolour and Colour Patches.

Buzz Pro 2.0 (Dual)
19 effects, with 13 pre-set Stacks: Bright Colour Wash, ColouredEdges, ColourPatches, GlossLayer, Ink, Neutral Colour Wash, Oil, PaletteKnife, Pure Colour Wash, Sketch1, Sketch2, Soft Colour Wash and Watercolour.

India Ink (Dual)
Flaming Pear's plug-in filter for paint programs. It converts colour or greyscale images into several unusual styles of black-and-white halftones.

Photoshop Layer Styles (Dual)
Three collections of exciting Layer Styles from PSXtras – 55 Unique Patterns, 10 Beetle Backs (based on the patterns to be found on real beetle carapaces), and Marble Styles. To load a library of preset Layer Styles, click the triangle in *Photoshop's* Styles palette, Layer Style dialog box or Layer Style pop-up palette in the options bar, then choose Load Styles.

Brushes Complete (Dual)
A collection of *Photoshop* brushes from graphicxtras.com, including whirly curve lines, pulsing lines, thin line brushes, stars, 3D brush strokes, contour, inset and outline brushes, flowers, starbursts, dots, blobs, splatters and more! Installation instructions are included in the ReadMe file.

Medical Supplies (Dual)
A collection of medical-themed *Photoshop* brushes from Wretched Designs.

Wretchedly Sharp (Dual)
A set of themed *Photoshop* brushes from Wretched Designs.

Flaming Pear's India Ink plug-in is great for all kinds of effects, not just mono.

Video Tutorial

An *exclusive* real-time video tutorial from PSXtras, showing you step by step how to create an 'Evil Look' illustration from a portrait photo and some textures. Includes supporting files so you can try the project for yourself.

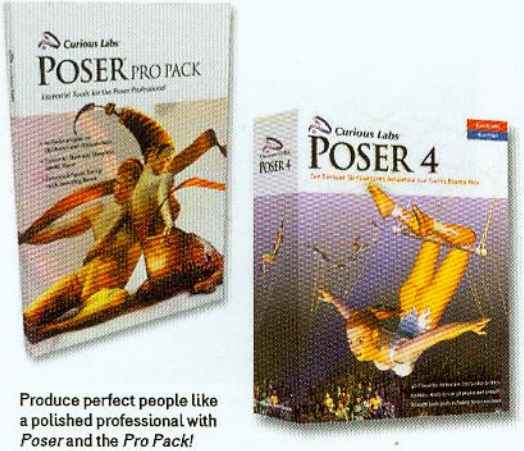
Can't get Halloween out of your brain? Our exclusive video tutorial shows you how to make this scary character!

DEMOS

Trial software

Illustrator 10 (Dual)
A fully-functional, 30-day try-out of the current version of Adobe's vector drawing program. Its powerful tools and creative options make it ideal for producing vector artwork for print, Web or anywhere. Produce superb Web graphics using symbols and innovative slicing options; explore creative options using live distortion tools; and publish in record time with dynamic data-driven graphics and other productivity features.
[w] www.adobe.com

Poser 4 plus Pro Pack (Dual)
A 30-day try-out of the astonishing 3D-character animation tool for the creation of images, movies and models for Web, graphics, video and 3D projects. You can also transform static props and imported props into fully posable and animatable *Poser* figures. This trial includes the *Pro Pack* add-on module and comes with one *Poser* character, two hair sets, and a sample Setup Room prop. This is a 30-day trial. The continuous day count starts when the trial is installed. You cannot save or render scenes and cannot import or export any 2D or 3D data.
[w] www.curiouslabs.com



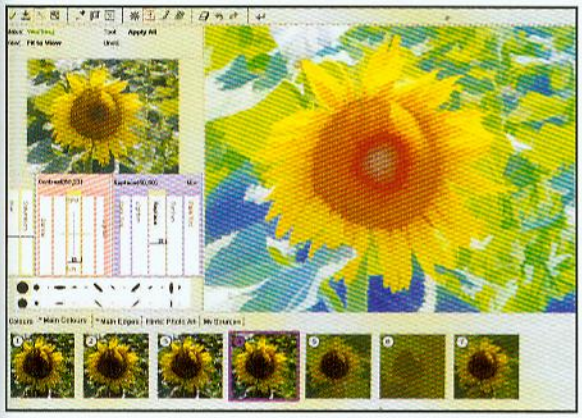
Produce perfect people like a polished professional with *Poser* and the *Pro Pack!*

COMPUTER arts projects INTERACTIVE

On the CD

Another great free product to help you produce stunning natural media effects...

PhotoArtMaster Classic 1.5
Format **PC**
Maker **Fo2PiX**
As sold for **£10**
Product status **Full program**
Website **[w] www.fo2pix.com**
Serial number **1030-MMBP-TH5T-LLTB**
Requires **Windows 98/2000/Me/XP, 500MHz processor, 256MB RAM, 500MB free disk space**



Colourful images of nature can be made to look like hand-painted watercolours.

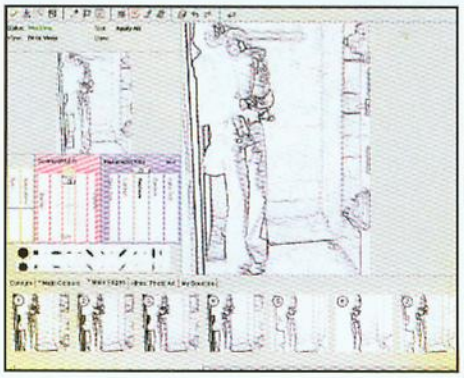
FULL PC PROGRAM

PhotoArtMaster Classic 1.5

Transform any photograph into an illustration with this powerful complete program...

PhotoArtMaster gives you a range of tools and effects you can mix and match to create an infinite variety of fake paintings from ordinary photographs. Turning digital photos into faux watercolours isn't a new concept. Just about any sophisticated graphics application has the ability to take an image and apply built-in effects. The results can be credible, but not overly impressive. *PhotoArtMaster* is designed solely for this purpose and, with practice, the results can be stunning.

On the face of it, you can make two kinds of composition in *PhotoArtMaster*: watercolours and line drawings. Line drawings can be drawn with several kinds of pen – for instance, you can convert your images to charcoal style drawings or, if you prefer, you can alter the thickness of your lines and go for a pen-and-ink style instead. You can even combine the styles, then drop on a watercolour later – with the effect that you've sketched out the image, then built up the colour on top.



Turn your digital photographs into pen-and-ink line drawings or use charcoal to create a softer effect.

Layers of colour

Using *PhotoArtMaster* effectively requires an element of skill and judgement; you can't just select an option for line drawing or watercolours, then choose the contrast and line style. Paintings are created in stages. First, you edit the image using rudimentary tools such as crop, rotate, and skew. Then you start dropping effects onto the canvas, fixing those you like, discarding those you don't. Eventually the image is built from a series of coloured layers, just like the real thing. The trick is knowing which layers to retain and which to discard.

PhotoArtMaster can produce excellent results, but it can take time and effort to mimic the quality of the supplied examples. If you enjoy experimenting with new software, and you have a selection of ready and willing photographs, give it a spin – you could create your own line of greetings cards with it and you might even get a hangable painting out of it! For more information and a gallery of images created with the program, visit **[w]** www.fo2pix.com.

Visit the *PhotoArtMaster* gallery at **[w] www.fo2pix.com** to view a whole range of the effects you can create.

Upgrade and save 25 per cent

Go Gold and get a wealth of new features...

If you enjoy using *PhotoArtMaster Classic*, and you want to try more of its tricks and techniques, here's your chance to upgrade to the Gold version. This version of the program includes a host of additional options, and automatically generates more than 300 variations of your base picture. You can upgrade to *PhotoArtMaster Gold* for a specially discounted price by visiting **[w]** www.fo2pix.com/futurepub. Here you'll be able to buy the software for just £75 – a huge saving of 25 per cent off the usual selling price of £99.99!

Getting started with PhotoArtMaster Classic

Follow our steps to making your photos look like hand-painted artworks...

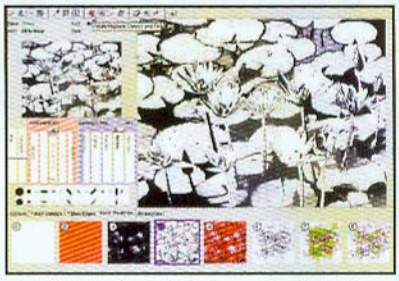
1 Click the install link on the cover disc interface and follow the common prompts to install the complete version on your PC. Then double-click the PhotoArtMaster Classic icon placed on your desktop, enter the serial code 1030-MMBP-TH5T-LLTB, and click Authorise.

2 *PhotoArtMaster* only supports JPEG and PNG format images, so if your photos are in a different format, you'll need to convert them first with your regular image editor. Once you've done that, launch *PhotoArtMaster* and load the converted image.

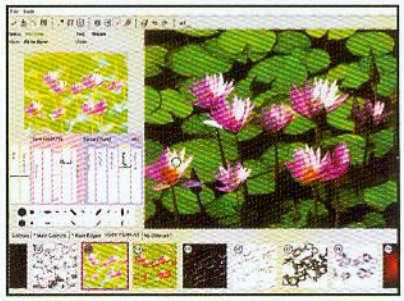
3 Select File>Open, and navigate to the folder containing your JPEGs. Choose one and click Open, then click the Go to Preparation icon on the main toolbar and wait a few moments for the editor to appear.

4 The Preparation Editor enables you to clean up your photo before you apply any effects. Here you'll find cropping, rotating, and warping tools, as well as basic colour correction sliders.

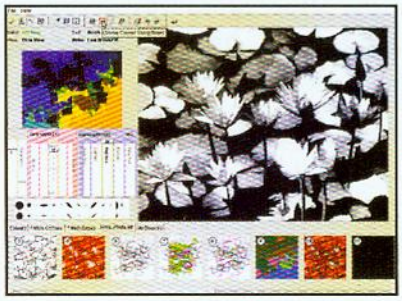
5 Press the Crop icon and draw your selection across the thumbnail. A handy overlay of the diagram for the 2/3 rule appears over the image while you drag the selection. Press the Accept Crop icon then the Return to Picture icon when you've finished.



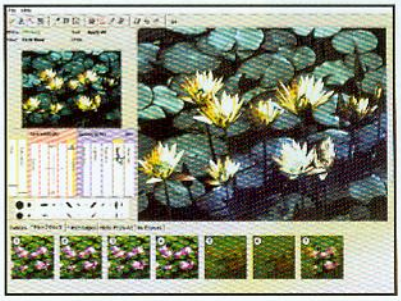
6 Click the Studio Editor icon and switch to the Hints Photo Art tab to generate thumbnails of your image. Select a thumbnail to view it in a larger format, use the brightness and contrast controls to fine-tune the effect, then click the Totally Replace Canvas and Fix icon.



7 Choose a base image from the thumbnails, click the Totally Replace Canvas and Fix button, then switch to the Hints Photo Art tab. Select an effect, then selectively paint this over the original image, using varying brush styles.



8 To experiment, click Source 1 then Totally Replace Canvas and Fix icon, then click Source 10, and again, fix it. Click the Overlay Using Mixers icon, then click each source you want to blend in, fixing it with the Fix Artwork button.



9 Click Source 1 and fix it, then Source 2 (and fix it), then Source 3. Select Overlay and then the Fix Artwork button. Click Source 4, select Overlay and then Fix Artwork. For best results, adjust the brightness and contrast sliders. CD